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University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

ARTS.

ENGLISH GRAMMAR.

HONORS.

Examiner:—David Reid Keys, M.A.

NOTE.—*Candidates for University Scholarships will take only those questions marked with an asterisk. All other candidates (whether for Pass or Honors, Second Class or First Class Certificates) must take the first seven questions and any two of the remainder.*

*1. What are the faults and failings of the English alphabet in so far as consonants are concerned?

*2. In what different ways has the English language derived words from the languages of Asia? Give examples.

*3. How does Earle classify adjectives? Explain the terms he uses.

*4. Write an article on English diminutives.

*5. Account for the plural ending *s*, and explain the irregular plurals of native origin.

*6. "Of the flexional adverbs formed from case-endings, this genitival is the one that retains most vitality, but it is little more than semi-animate. What vitality it has tends.....towards symbolism."

(*a*) Give examples (2 for each case) of adverbs formed from case-endings.

(*b*) Explain and illustrate what Earle means by symbolism.

(OVER.)

*7. Write notes on the following passages, explaining the exact meaning of the words in *italics*, and suggesting any changes you think necessary :

(*a*) If any monument *should* particularly excite your curiosity, I *shall* endeavor to satisfy your demands.

(*b*) *Were* I to advise any man for whom I had the least regard, I *would* caution him not to be imposed upon by false pretences.

(*c*) He explained the manner in which he *would* deal with beggars *were* he a magistrate.

(*d*) The genius of a country *should* be investigated with a kind of experimental inquiry : by this means we *should* have more precise and just notions of foreign nations.

(*e*) As soon as we *are* arrived at Moscow.....you *shall* be informed of all.

(*f*) I intend she *shall* be as perfect as possible in every accomplishment.

(*g*) But it is time to quit this sketch on which, however, I *should* be glad to dwell.

*8. Account historically for the following verbal forms:—*art*, *can* (3rd sing.), *could*, *doth*, *hast*, *says I*, *shalt*, *wast*, *wert*, *won't*.

9. Explain, with the aid of examples, the grammatical terms : Absolute Construction, Gerund, Reduplication, Umlaut.

*10. Make a list of auxiliary verbs, explaining the functions of each.

*11. Compare English with any other languages you may have studied with respect to its power of expressing distinctions of mood. Illustrate.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

ARTS.

ENGLISH COMPOSITION AND PROSE LITERATURE.

PASS AND HONORS.

Examiners: { A. H. Reynar, M.A., / David Reid Keys, M.A.

Note.—*Candidates for University Scholarships will take only those questions marked with an asterisk. All other candidates (whether for Pass or Honors, Second Class or First Class Certificates) must take the first four questions and any two of the remainder.*

*** *Pass Candidates are warned that part* I *counts half the paper.*

I.

*1. Write a Composition on:—

The Genius of Goldsmith as illustrated in the Citizen of the World.

II.

*2. Explain the title, "The Citizen of the World." Under what circumstances were these essays written? Who were Goldsmith's models in this style of writing?

*3. "The distinctions of polite nations are few; but such as are peculiar to the Chinese appear in every page of the following correspondence. The metaphors and allusions are all drawn from the East. Their formality our author carefully preserves. Many of their favorite tenets in morals are illustrated. The Chinese are always concise; so is he. Simple; so is he. The Chinese are grave and sententious; so is he. But in one particular the resemblance is peculiarly striking: the Chinese are

(over.)

often dull; and so is he. Nor has my assistance been wanting. We are told in an old romance of a certain knight-errant and his horse who contracted an intimate friendship. The horse most usually bore the knight; but in cases of extraordinary dispatch the knight returned the favor and carried his horse. Thus in the intimacy between my author and me, he has usually given me a lift of his Eastern sublimity, and I have sometimes given him a return of my colloquial ease.

Yet it appears strange in this season of panegyric when scarcely an author passes unpraised either by his friends or himself, that such merit as our philosopher's should be forgotten. While the epithets of ingenious, copious, elaborate, and refined are lavished among the mob like medals at a coronation, the lucky prizes fall on every side, but not one on him. I could on this occasion make myself melancholy, by considering the capriciousness of public taste, or the mutability of fortune; but during this fit of morality, lest my reader should sleep, I'll take a nap myself, and when I awake tell him my dream."

(*a*) State the subject of each of these paragraphs. How is the transition made?

(*b*) Cite or refer to examples of the Chinese peculiarities in these Essays.

(*c*) Distinguish between: *metaphor* and *simile; tenet* and *doctrine; formality* and *stiffness; concise* and *precise; simple* and *clear; romance* and *novel.*

(*d*) Derive *sententious, romance, knight-errant.*

(*e*) Note any words used in a different sense from that now given them, and explain the distinction.

(*f*) *panegyric.* Give synonymous words and distinguish carefully in meaning.

*4. Rewrite the second paragraph, substituting words of Old English (Anglo-Saxon) origin where you can.

*5. Criticise Goldsmith's use of figurative language.

6. Describe the visit to the Club of Authors.

*7. Sketch the character of the Man in Black.

8. Compare Beau Tibbs with a modern dandy.

*9. Compare Goldsmith as an essayist with the writer of the Victorian age who, in your opinion, most resembles him.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

ARTS.

HONOR ENGLISH.

AS YOU LIKE IT.

Examiners: A. H. Reynar, M.A., David Reid Keys, M.A.

Note.—*Candidates for Scholarships will take the whole paper. Other candidates will take the first seven and any two of the remaining questions.*

1. Whence did Shakespeare obtain the main incidents of this Comedy? Wherein then lies the originality of Shakespeare? Point out particular instances of his originality in this drama.

2. What is the true sphere of Comedy? Distinguish from Satire and Burlesque. Show how this work fulfils the requirements of Comedy.

3. What considerations led to the use of verse in some parts of As You Like It, and of the prose form in other parts?

4. Act II, Scene I:

Duke Senior. Come, shall we go and kill us venison?
And yet it irks me, the poor dappled fools,
Being native burghers of this desert city,
Should, in their own confines, with forked heads
Have their round haunches gor'd.
First Lord. Indeed, my lord,
The melancholy Jaques grieves at that;
And, in that kind, swears you do more usurp
Than doth your brother that hath banish'd you.

(*a*) Point out the art of description presented in this passage, and show how the general sense may be retained but all force lost through the change or omission of a very few words.

(over.)

(*b*) The Duke and Jaques seem to say the same thing. Do they mean the same and produce the same impression? If not, point out the difference.

5. Act II, Scene VI:

Adam. Dear master, I can go no further: O, I die for food! Here lie I down, and measure out my grave. Farewell, kind master.

Orlando. Why, how now, Adam? no greater heart in thee? Live a little; comfort a little? cheer thyself a little. If this *uncouth* forest yield anything *savage*, I will either be food for it or bring it for food to thee. Thy *conceit* is nearer death than thy powers. For my sake be *comfortable*: hold death awhile at the arm's end: I will here be with thee presently; and if I bring thee not something to eat, I will give thee leave to die: but if thou diest before I come, thou art a mocker of my labour. Well said! thou lookest cheerly; and I'll be with thee quickly.

(*a*) What peculiar Shakespearian interest attaches to the part of *Adam* in this play?

(*b*) Wherein does this scene differ from the corresponding scene in the tale on which the play is founded? Why did Shakespeare make it to differ?

(*c*) Write a comment on Orlando's speech as a specimen of the art of persuasion.

(*d*) Write notes on the words in italics.

6. Give, after Jaques, the play of human life in seven acts.

7. Act II, Scene VII:

Duke Senior. If that you were the good Sir Rowland's son,—
As you have whispered faithfully *you were*,
And as mine eye doth his *effigies* witness
Most truly *limn'd* and living in your face,—
Be truly welcome hither: I am the duke,
That lov'd your father: the residue of your fortune,
Go to my cave and tell me.—Good old man,
Thou art right welcome as thy master is.

(*a*) Write notes on the words in italics.
(*b*) Why the change of pronouns in the last two lines?
(*c*) Scan lines 3, 5 and 6.

8. Specify some traces of French influence on our tongue that still survive in the language of Shakespeare but have now disappeared.

9. Give the connection of the following quotations:

(*a*) I'll warrant him heart-whole.

(*b*) Kindness, nobler even than revenge.

(*c*) Your 'If' is the only peace-maker.

(*d*) And thereby hangs a tale.

(*e*) Most mischievous foul sin, in chiding sin.

10. What is the final ethical impression of this Comedy?

11. How would you defend Rosalind's freedom of speech from the charge of indelicacy?

12. A modern critic says that "if in Touchstone there is much of the philosopher in the Fool, in Jaques there is not less of the fool in the philosopher." Point out wherein Jaques is a fool and Touchstone a philosopher.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

ARTS.

HISTORY AND GEOGRAPHY.

HONORS.

Examiner—T. Arnold Haultain, M.A.

Note.—*Candidates for University Scholarships will take only those questions marked with an asterisk. All other candidates (whether for Pass or Honors, Second Class or First Class Certificates) must take the first five questions and any two of the remainder.*

*1. Indicate the tracts of the principal submarine cables uniting various portions of the British Empire.

*2. Name and give the position of the chief satellite island groups belonging to the British Archipelago.

*3. Name the more important coal fields of England and Wales.

*4. Describe generally the condition of England, from a commercial or financial point of view, in the time of Charles I.

To what causes would you be inclined to attribute that condition?

*5. "*The poem* ['*The Faerie Queen*'] *expressed, indeed, the very life of the time.*"—Green.

Explain what the historian means by this assertion.

*6. Write brief critical or explanatory notes on each of the following:—the Puritan emigration to New England; "Self-renouncing Ordinance"; the "Instrument of Government" (1653); the "Test Act" (1673); the "*Habeas Corpus* Act."

*7. Remark briefly on Cromwell's foreign policy.

8. Sketch concisely the character of Wentworth (Lord Strafford).

How was he regarded by his sovereign?

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

FACULTY OF MEDICINE.

HISTORY AND GEOGRAPHY.

PASS AND HONORS.

Examiner—T. Arnold Haultain, M.A.

Note.—*Candidates for University Scholarships will take only those questions marked with an asterisk. All other candidates (whether for Pass or Honors, Second Class or First Class Certificates) must take the first four questions and any two of the remainder.*

*1. State the area, boundaries, and chief productions of Montana, Washington, and North and South Dakota.

*2. Give generally the course of each of the chief canals of Canada.

*3. Describe briefly the international political relationships subsisting between the great European powers immediately prior to the conclusion of the Peace of Amiens, 1802.

*4. Write a short note on the British North America Act.

*5. Write short notes on each of the following:—"Declaration of Rights" (1689); Stamp Act; Poyning's Act; Fox's India Bill; Act of Union with Ireland; abolition of the slave trade (1807).

*6. Follow (very briefly) Clive through his Indian career.

7. Write short notes on each of the following:—the letters of "Junius"; the first public reports of Parliamentary debates; Burke's attitude towards the French revolution; the prosecution of the *North Briton*.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

ARTS.

ALGEBRA.

HONORS.

Examiners: W. H. Ballard, M.A.; A. R. Bain, M.A.; J. McGowan, B.A.

NOTE.—*Candidates for University Scholarships will take only those questions marked with an asterisk. All other candidates (whether for Pass or Honors, Second Class or First Class Certificates) must take the first question and any eight of the remainder.*

* 1. Solve the equations

(*a*) $(y+z)^2=\frac{5}{x}$,

$z(xy+1)=y-4$,

$y+\frac{1}{z}=0$;

(*b*) $x^4=\frac{mx+n}{nx+m}$.

*2. Shew that the sign of the expression ax^2+bx+c is constant for all real values of x so long as b^2 is not greater than $4ac$.

If b^2 is greater than $4ac$, under what conditions will the sign of the expression be constant?

Find the condition that $ax^2+bx+c=0$, and $px^2+qx+r=0$, may have a common root.

*3. Find an equation connecting the quantities a, d, n, s, when a is the first term, d the common difference, s the sum of the series, and n the number of terms in an Arithmetical Progression.

(OVER.)

If $-p$, q be the values of n which satisfy this equation, shew that the sum of p terms beginning with $d-a$ is the same as the sum of q terms beginning with a.

*4. Sum to n terms and to infinity the series a, ar, ar^2, &c., r being a proper fraction.

How far does the expression obtained for the sum to infinity correctly represent the series?

Two infinite geometrical series so related that the first term of each is the common ratio of the other have the same limiting value; find it.

*5. The $m^{th.}$ and $n^{th.}$ terms of an Harmonical Progression being given, find the $(m+n)^{th.}$ term.

If A, G, H, be the arithmetical, geometrical, and harmonical means between two quantities m and n, shew that

$$\frac{A(m-H)(H-n)}{A-H} = G^2 .$$

*6. If $y^2+z^2=ayz$
$z^2+x^2=bzx$
$x^2+y^2=cxy$
shew that $a^2+b^2+c^2-abc=4$.

Employ this result to eliminate x, y, z from
$(x+y)^2=4c^2xy$
$(y+z)^2=4a^2yz$
$(z+x)^2=4b^2zx$.

*7. Find the number of combinations of n things taken r at a time.

Shew that this is the same as the number taken $n-r$ at a time.

If there are n seats in a room, in how many ways may $n-r$ candidates be seated for an examination?

If two particular candidates are restricted to the front row which consists of p seats, in how many ways may the seating be effected?

*8. Assuming the Binomial Theorem for positive integral indices, prove it for negative and fractional indices.

If $C, C_1, C_2, \ldots\ldots C_n$, are the coefficients in the expansion of $(1+x)^n$ shew that

$$CC_1+C_1C_2+C_2C_3+\ \ldots\ldots\ +C_{n-1}C_n$$
$$=\frac{1\cdot3\cdot5\cdot\cdots(2n-1)}{\underline{|n+1}}\cdot 2^n\cdot n\ .$$

*9. Discuss the form of the general term of $(1\pm x)^{\frac{m}{n}}$ (m and n being positive integers) according as the index is a proper or an improper fraction.

10. Shew that $(n+1)(4n^2+11n+6)$ is the sum to $2n+1$ terms of the series

$$1\cdot2\cdot3-2\cdot3\cdot4+3\cdot4\cdot5-4\cdot5\cdot6+\&c.$$

11. Find the r^{th} term in the expansion of

$$\frac{(1-x)^3}{\sqrt{1-4x}}\ .$$

Find the coefficient of x^5 in the expansion of

$$\frac{\sqrt{1-x}}{(1+x)^3}\ .$$

*12. Find the coefficient of x^{2n} in the expansion of

$$\frac{1}{(1-x)(1+x)^4}\ .$$

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

MEDICINE.

ARITHMETIC AND ALGEBRA.

HONORS.

Examiners: A. R. Bain, M.A.; W. H. Ballard, M.A.; J. McGowan, B.A.

1. Out of a cask containing 440 quarts of pure alcohol a quantity is drawn off and replaced by water. Of the mixture a second quantity, $91\frac{1}{9}$ quarts more than the first, is drawn off and replaced by water. The cask now contains as much water as alchool. Find how many quarts were taken out the first time.

2. A man insured his life for $\$a$ at a premium of $\$d$ per annum: he died after n years and the insurance office neither gained nor lost in the transaction. Find n, reckoning compound interest at the rate of q per cent. per annum.

3. The hour hand of a watch is $\frac{3}{7}$ of an inch long, the minute hand $\frac{4}{5}$ of an inch, and the second hand $\frac{1}{3}$ of an inch. Compare the *linear* speeds of their points.

4. If B and C working together take p days to do a piece of work, for which C and A together took q days, and A and B together r days: find how long each would take by himself.

5. Shew that if a whole number be expressed in a scale whose radix is odd, the sum of the digits will be even if the number be even, and odd if the number be odd.

6. Shew that the roots of the equations

$$x^2+(x-b)(x-c)+(x-c)(x-a)+(x-a)(x-b)=0$$

are real if a, b and c are real.

(OVER.)

7. Solve

(1) $\dfrac{6x^2-24y^2+130}{2x-4y+3}=3x+6y+1$,

$\dfrac{9xy-110}{3y-4}+\dfrac{151-16x}{4y-1}=3x$;

(2) $\dfrac{(a+x)^{\frac{1}{n}}}{a}+\dfrac{(a+x)^{\frac{1}{n}}}{x}=\dfrac{x^{\frac{1}{n}}}{c}$

(3) $x^2+y^2+xy(x+y)=68$,

$x^3+y^3-3x^2-3y^2=12$.

8. Shew that if $\dfrac{x}{a}=\dfrac{y}{b}=\dfrac{z}{c}$ then will

$$\frac{x^2+a^2}{x+a}+\frac{y^2+b^2}{y+b}+\frac{z^2+c^2}{z+c}=\frac{(x+y+z)^2+(a+b+c)^2}{x+y+z+a+b+c}$$

also that if

$$\frac{x}{b+c-a}=\frac{y}{c+a-b}=\frac{z}{a+b-c}$$ then will

$$(b-c)x+(c-a)y+(a-b)z=0\ .$$

9. Eliminate x, y, z from the equations

$$\frac{x^2-xy-xz}{a}=\frac{y^2-yz-yx}{b}=\frac{z^2-zx-zy}{c},$$

$$ax+by+cz=0\ .$$

10. A and B have two rectangular tracts of land, their lengths being as 7 to 6, and the difference between the areas is 150 acres; B's being the greater. Now had A's been as broad as B's it would have been 672 rods long; but had B's been as broad as A's it would have been 900 rods long. How many acres were there in each?

11. Find two numbers such that their product shall be equal to the difference of their squares and the sum of their squares shall be equal to the difference of their cubes.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

ARTS.

EUCLID.

HONORS.

Examiners: J. McGowan, B.A.; W. H. Ballard, M.A.; A. R. Bain, M.A.

Note.—*Candidates for Scholarships will take the whole paper. Other candidates will take only eight of the eleven questions.*

1. Triangles on the same base, and between the same parallels, are equal in area.

A point P is taken in the diagonal AC of a parallelogram $ABCD$, the remaining diagonals of the complements PB and PC intersect on AC produced.

2. The difference of the squares on two straight lines is equal to the rectangle contained by their sum and difference.

Produce a given right line so that the rectangle contained by the whole line thus produced and the part produced may be equal to a given square.

3. If a line through the centre of a circle bisect a chord, which does not pass through the centre, it cuts it at right angles; and conversely.

Through an intersection of two circles draw a line so that the part of it intercepted by the circumferences of the circles may be of given length.

4. Without using any proposition in Book III, prove that the opposite angles of a quadrilateral inscribed in a circle are together equal to two right angles.

The perpendiculars from the angular points of a triangle on the opposite sides bisect the angles of the triangle formed by joining the feet of these perpendiculars. (over.)

5. When a circle touches a set of lines, or passes through a set of points, how is its centre determined?

About a given circle to circumscribe a triangle equiangular to a given triangle.

6. To inscribe a regular pentagon in a given circle.

Inscribe in a given circle a triangle whose angles are as the numbers 1, 5, 9.

7. Define *proportion, continued proportion, mean proportional, duplicate ratio, ratio compounded of given ratios, similar rectilineal figures.*

The areas of triangles of the same altitude are to one another as their bases.

8. The sides about the equal angles of equiangular triangles are proportional, and those which are opposite to the equal angles are homologous.

Two tangents are drawn to a circle and their points of contact joined, from any point in the circumference perpendiculars are dropped on the chord and tangents; the perpendicular on the chord is a mean proportional between those on the tangents.

9. To divide a straight line similarly to a given divided straight line.

To divide a given straight line internally and externally, so that its segments may be in a given ratio.

10. To describe a rectilineal figure which shall be equal to one and similar to another rectilineal figure.

11. If from the vertical angle of a triangle a straight line be drawn perpendicular to the base, the rectangle contained by the sides of the triangle shall be equal to the rectangle contained by the perpendicular and the diameter of the circle described about the triangle.

$ABCD$ is a quadrilateral inscribed in a circle such that AC bisects BD; then $AB \cdot BC = CD \cdot DA$.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

MEDICINE.

EUCLID.

HONORS.

Examiner—JOHN MCGOWAN, B.A.

1. State, and prove briefly, the converses of "The opposite sides and angles of a parallelogram are equal to one another, and each diagonal bisects it."

2. Only one triangle can be found having two given angles and the side adjacent to these angles also given.

Given two sides and the angle opposite the greater of these sides, prove that only one triangle can be determined.

3. Triangles on the same base, and between the same parallels, are equal in area.

Construct a triangle equal to a given rectilineal figure, and a rectangle equal to the same rectilineal figure.

4. The complements of the parallelograms about the diagonal of any parallelogram, are equal to one another.

Construct a rectangle equal to a given square and having a side of given length.

5. The difference of the squares on two straight lines is equal to the rectangle contained by their sum and difference.

From the vertex of an isosceles triangle a line is drawn terminated by the base, the square on a side of the triangle is equal to the square on this line together with the rectangle under the segments of the base.

6. If a straight line is divided equally and also unequally, the sum of the squares on the unequal parts is twice the sum of the squares on half the line and on the line between the points of section.

Prove the above proposition by using Props. 1 and 4, Book II.

(OVER.)

7. In any triangle the square on a side opposite an acute angle is less than the sum of the squares on the sides forming the acute angle, by twice the rectangle contained by either of these sides and the straight line intercepted between the perpendicular let fall on it from the opposite angle and the acute angle.

A straight line AB is bisected in O; P is any point on the circumference of a circle whose centre is O; prove $PA^2 + PB^2$ is constant.

8. If a line through the centre of a circle bisect a chord, which does not pass through the centre, it cuts it at right angles.

If it cut it at right angles, it bisects it.

The longest line drawn through an intersection of two circles, and terminated by their circumferences, is parallel to the line joining their centres.

9. Without using any proposition in Book III, prove that the opposite angles of a quadrilateral inscribed in a circle are together equal to two right angles.

The alternate angles of a hexagon inscribed in a circle are together equal to four right angles.

10. In equal circles the arcs which subtend equal angles, whether at the centres or circumferences, are equal.

From any point on one of two circles two lines are drawn through the intersections of the circles; these lines intercept a constant arc on the other circle.

11. If from any point outside a circle, two straight lines are drawn, one of which cuts the circle and the other touches it; then the rectangle contained by the whole line which cuts the circle, and the part of it without the circle, is equal to the square on the line which touches it.

P is a point in a straight line AB produced; the points of contact of tangents drawn from P to a series of circles passing through A and B, lie on a circle.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

ARTS.

TRIGONOMETRY.

HONORS.

Examiners: A. R. Bain, M.A.; J. McGowan, B.A.; W. H. Ballard, M.A.

NOTE.—*Candidates for Scholarships are required to take the whole paper. Other candidates are to take any eight questions.*

1. In what respects is an angle treated differently in geometry and in trigonometry?

What are the different units used in measuring angles?

Prove that these units are invariable.

2. Define the *trigonometrical ratios* of an angle.

Express all the other ratios in terms of the *sine*.

If A have any value, prove

(1) $\sin(90+A)=\cos A$,

(2) $\cos(90+A) = -\sin A$,

(3) $\sin(180-A)=\sin A$.

3. A and B being each less than a right angle, prove that

$$\sin(A+B) = \sin A\cos B + \cos A \sin B .$$

Deduce the values of $\cos(A+B)$ and $\sin(A-B)$.

4. Find sin, cos and tan of 30°, 45°, and 15°.

In a triangle having given $A=75°$, $C=60°$ and $c=\sqrt{32}$, find b and a each to three decimal places.

5. Obtain the general value of an angle whose sine is given.

Prove

$$\sqrt{2}\,\sin\left(\frac{A}{2}+\frac{\pi}{4}\right) = \pm\sqrt{1+\sin A},$$

and obtain the limits between which $\frac{A}{2}$ must lie when the upper sign is used in the right hand side.

(OVER.)

6. Define *logarithm* and *base*.

Prove

(1) $\log ab = \log a + \log b$,

(2) $\log a^n = n \log a$.

Explain fully why the mantissa only is printed in the tables.

Obtain the tabular logarithms of sin, cos and tan of 60°.

7. In a triangle prove

(1) $$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c} = \frac{1}{2R},$$

(2) $a = b \cos C + c \cos B$,

(3) Props. 12 and 13, Euclid, Book II,

(4) $$\sin \frac{A}{2} = \sqrt{\frac{(s-b)(s-c)}{bc}},$$

(5) If l, m, n, be perpendiculars from the corners on the opposite sides,

$$\frac{\cos A}{l} + \frac{\cos B}{m} + \frac{\cos C}{n} = \frac{1}{R}.$$

8. Find the lengths of the sides of the triangle formed by joining the centres of the escribed circles.

Find the length of the bisector of the angle A of a triangle, terminated by the opposite side.

9. Solve the triangle

$$A = 45°, \quad a = 56, \quad b = 75.$$

Number.	Logarithm.	Ratio.	Logarithm.
20000	3010300	sin 71° 15′	9·9763179
30000	4771213	sin 71° 16′	9·9763608
70000	8450980	sin 63° 44′	9·9526685
71019	8513746	sin 63° 45′	9·9527308
71020	8513807	sin 26° 15′	9·6457058
35046	5446385	sin 26° 16′	9·6459619
35047	5446508		

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

CHEMISTRY.

HONORS.

Examiner—ANTHONY MCGILL, B.A.: B.Sc.

NOTE.—*Candidates for Scholarships must take the full paper. Other candidates will choose any* FIVE *questions.*

1. (*a*) Describe in detail any work done by yourself with the object of determining the combining equivalent of any element, relative to that of any other element.

(*b*) Assuming the number taken as the combining equivalent in the case of the element taken as a standard of reference in the foregoing work to be the true atomic weight of that element, does it follow that the number found by you for the other element is its atomic weight? Discuss this point fully.

2. (*a*) There are two sulphates of potassium, but only one nitrate and one chloride. If you have experimentally proved (or seen proved) these facts, describe your work.

(*b*) What is the theoretical explanation of such facts?

(*c*) What are *basic* salts? Why are there no basic salts of potassium?

3. Seven stoppered glass cylinders contain the following gases:—Hydrogen, Chlorine, Oxygen, Nitrogen, Nitrogen Monoxide, Hydrochloric Acid, Nitrogen dioxide.

It is required to *determine* and *confirm* by *as many tests* as you can apply, the nature of the gas in each cylinder.

NOTE.—Give your answer to this question in the form of two tables, containing respectively the *physical* and *chemical* tests which you propose to apply, and their results.

In the event of your requiring to transfer the gas for examination from the original containing vessel—a glass stoppered tube—to another vessel, describe minutely the mode by which you accomplish such transference.

(OVER.)

4. (*a*) Explain the chemistry of the following method of procuring a *constant* supply of Nitrogen. Give equations. Air, containing an excess of ammonia gas, is passed over strongly heated copper, in a combustion tube, and Nitrogen is collected (over water) at the exit end of the combustion tube.

(*b*) Calculate the weight of Ammonia which would be required, with air, to produce 1000 litres of Nitrogen.

5. Certain elements so much resemble Nitrogen in the characters of their analogous compounds as to form a natural group or family which is often spoken of as the *Nitrogen family*. Enumerate these elements, and point out the analogies among their compounds.

6. What will happen in each of the following cases? Give equations:

(*a*) Arsenious oxide is boiled with dilute hydrochloric acid in excess. The cool solution is poured upon granulated zinc.

(*b*) Alum is dissolved in water. Soda solution is gradually added to the alum solution.

(*c*) Yellow phosphorus is dissolved in carbon bisulphide. A piece of blotting paper is dipped into the solution—then withdrawn and placed upon an iron plate till dry.

(*d*) Chalk is treated with dilute hydrochloric acid. The gas produced is passed into lime water.

(*e*) A few crystals of green vitriol (sulphate of iron) are dropped into a solution of nitrate of soda, and strong sulphuric acid is added.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

BOTANY.

HONORS.

Examiner:—J. J. Mackenzie, B.A.

NOTE.—*Candidates for Honors must take questions marked* * . *Candidates for 1st Class C. examination must take the first three questions and any three of the remaining four.*

* 1. Describe accurately the plant submitted.

* 2. Refer it to its proper position amongst Phanerogams, and mention several allied Canadian species.

* 3. Illustrate, by drawings, as accurately as possible, the structure of the flower before you. Show by a floral diagram the relationship of the different organs.

* 4. Give some account of the method in which plants obtain their food. Explain in this connection what is meant by insectivorous plants and mention some Canadian examples.

5. Describe fully the fructification in the common horse-tail (Equisetum) and compare it with that in the club moss (Lycopodium).

* 6. Give some account of the Stonewort (Chara), and its method of reproduction.

* 7. Give a short account of the means by which cross fertilization is brought about in the flower, illustrating your answer as fully as possible by Canadian examples.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

LATIN PROSE.

HONORS.

Examiner:—F. H. Wallace, M.A., B.D.

Translate :—

We may now believe Cicero, when he avows that life is become indifferent to him, that he flies from the centre of affairs, not from apprehension of danger, but to maintain his name untarnished. He is old in years, and ripe in reputation, and all he wishes is to retire from the stage with dignity. Athens, the home of the afflicted, "the city of the soul," is the place to which he could now most cheerfully betake himself. Besides the classic attractions of the land of Greece, it was there that his son was at the moment studying. The first wish of his heart was now to cherish the sentiment of fraternal affection. In the wreck of his private fortune, which partook of the general embarrassments, he is still solicitous to maintain his child suitably to his rank and expectations. But in abandoning Italy he took leave of the most intimate of his friends, and when he heard that Atticus had shed tears at their parting, he declared that had he but witnessed this manifestation of tenderness, he might perhaps at the last moment have relinquished his intended journey.—*Merivale.*

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

ARTS.

LATIN AUTHORS.

HONORS.

Examiner:—F. H. Wallace, M.A., B.D.

I.

Translate:

Delicta maiorum immeritus lues,
Romane, donec templa refeceris
aedesque labentes deorum et
foeda nigro simulacra fumo.

dis te minorem quod geris, imperas:
hinc omne principium, huc refer exitum.
di multa neglecti dederunt
Hesperiae mala luctuosae.

iam bis Monaeses et Pacori manus
non auspicatos contudit impetus
nostros et adiecisse praedam
torquibus exiguis renidet.

paene occupatam seditionibus
delevit Urbem Dacus et Aethiops,
hic classe formidatus, ille
missilibus melior sagittis.

1. Parse: *refeceris, geris, contudit, adjecisse, delevit.*

2. Derive: *templa, simulacra, auspicatos, exiguis.*

3. Write brief notes on the proper names in the extract

4. Give scale of the metre.

(OVER.)

II.

Translate:

Ille potens sui
laetusque deget, cui licet in diem
dixisse vixi: cras vel atra
nube polum pater occupato,

vel sole puro: non tamed irritum,
quodcunque retro est, efficiet, neque
diffinget infectumque reddet,
quod fugiens semel hora vexit.

Fortuna saevo laeta negotio et
ludum insolentem ludere pertinax
transmutat incertos honores,
nunc mihi nunc alii benigna.

laudo manentem; si celeres quatit
pennas, resigno quae dedit et mea
virtute me involvo probamque
pauperiem sine dote quaero.

1. Explain the syntactical construction of: *sui*, *vixi*, *retro*, *ludere*, *mihi*.

2. Point out the exact etymological force of the prefix in: *occupato*, *irritum*, *efficiet*, *insolentem*, *resigno*.

3. Express without tropes the meaning of: *vixi*, *ludum insolentem*, *celeres quatit pennas*, *virtute me involvo*, *pauperiem sine dote*.

4. Distinguish *indies*, *quotidie*; *retro*, *postea*; *Fortuna*, *Fors*; *pauperies*, *paupertas*; *niger*, *ater*.

III.

Translate:

Haec ubi Asello nunciata sunt in castra, id modo moratus, ut consulem percunctaretur, liceretne extra ordinem in provocantem hostem pugnare, permissu ejus arma extemplo cepit: provectusque ante stationes equo Tauream nomine compellavit, congredique, ubi vellet, jussit. Jam Romani ad spectaculum pugnae ejus frequentes exierant: et Campani non vallum modo castrorum, sed moenia etiam urbis, prospectantes repleverant. Quum jam ante ferocibus dictis rem nobilitâssent, infestis hastis concitârunt equos; dein, libero spatio inter se ludificantes, sine

vulnere pugnam extrahebant. Tum Campanus Romano, "Equo rum," inquit, "hoc, non equitum, erit certamen, nisi e campo in cavam hanc viam demittimus equos; ibi nullo ad evagandum spatio cominus conserentur manus." Dicto prope citius equum in viam Claudius dejecit. Taurea, verbis ferocior, quam re, "Minime sis," inquit, "cantherium in fossa;" quae vox in rusticum inde proverbium prodita. Claudius, quum ea via longe perequitâsset, nullo obvio hoste, in campum rursum evectus, increpans ignaviam hostis, cum magno gaudio et gratulatione victor in castra redit. Huic pugnae equestri rem (quam satis certam, communis existimatio est,) mirabilem certe, adjiciunt quidam annales: quum refugientem ad urbem Tauream Claudius sequeretur, patenti hostium portae invectum, per alteram, stupentibus miraculo hostibus, intactum evasisse.

1. *Taurea, Claudius.* Give their names in full.

2. Write brief explanatory notes on: *consulem, vallum, cantherium, annales, urbis.*

3. Indicate on a sketch-map the principal battle fields in Hannibal's Italian campaigns.

4. Give an estimate of Livy's value as a historian.

IV.

Translate:

Ventum deinde ad multo angustiorem rupem, atque ita rectis saxis, ut aegre expeditus miles tentabundus, manibusque retinens virgulta ac stirpes circa eminentes, demittere sese posset. Naturâ locus jam ante praeceps, recenti lapsu terrae in pedum mille admodum altitudinem abruptus erat. Ibi quum, velut ad finem viae, equites constitissent, miranti Hannibali, quae res moraretur agmen, nunciatur rupem inviam esse. Digressus deinde ipse ad locum visendum: haud dubia res visa, quin per invia circa nec trita antea, quamvis longo ambitu, circumduceret agmen. Ea vero via insuperabilis fuit; nam quum super veterem nivem intactam nova modicae altitudinis esset, molli nec praealtae nivi facile pedes ingredientium insistebant; ut vero tot hominum jumentorumque incessu dilapsa est, per nudam infra glaciem fluentemque tabem liquescentis nivis ingrediebantur. Tetra ibi luctatio erat, ut a lubrica glacie, non

recipiente vestigium, et in prono citius pede se fallente, et, seu manibus in assurgendo seu genu se adjuvissent, ipsis adminiculis prolapsis, iterum corruissent, nec stirpes circa radicesve, ad quas pede aut manu quisquam eniti posset, erant; ita in levi tantum glacie tabidâque nive volutabantur. Jumenta secabant; interdum etiam, tum infirmam ingredientia nivem, et prolapsa, jactandis gravius in continendo ungulis, penitus perfringebant: ut pleraque, velut pedicâ capta, haererent in durata et alte concreta glacie.

University of Toronto.

ANNUAL EXAMINATIONS: 1889.

JUNIOR MATRICULATION.

GREEK AND LATIN GRAMMAR.

HONORS.

Examiner: F. H. Wallace, M.A., B.D.

1, Form adjectives from *quercus, fagus, fraxinus, ignis, palus, flumen, mons, canis, loquor.*

2. Conjugate *desilio, detego, confido, tero, cupio, fallo, fodio, pessumdo, comminiscor, ulciscor.*

3. What case-constructions follow *miseror, misereor, interest, potior, piget, similis, invideo, egeo, muto, nitor, dono?*

4. Expand and translate: *etc., i. e., e. g., sc., viz., met. grat., i. q., N. B., nem. con., q. v.*

5. Translate into Latin:

(*a*) Do you not know what sort of a man he was?

(*b*) I know not how many of us there were.

(*c*) July 22, 1889, 2 p.m.

6. Translate into English, explaining syntax:

(*a*) *Aedem vovit si hostes fudisset.*

(*b*) *Non mihi cordi est easdem ineptias millies audire.*

(*c*) *At tibi repente venit ad me*
Caninius mane.

7. Form nominatives from γῆρατ–, κι–, ἰκμαδ–, παντ-, δορατ-, δουλοοντ-, γενεσ-, ὀδοντ-, ὀνοματ-.

8. Compare *ἀμαθής*, *φίλος*, *ἄγχι*, *εὖ*, *ῥᾳδιος*, *μάλα*, *μέλας*, *ταχέως*, *παλαιός*, *προτερός*.

9. Form aor. act., 1 sing., from stems *μιαν-*, *κριν-*, *φθερ-*, *βαλ-*, *τρεπ-*, *σπεν-*, *ἐλα-*, *ἀγ-*, *ὀλ-*, *ἐχ-*.

10. Mention the principal conjunctions used in Temporal Sentences, and give the general rule for the moods.

11. Translate into English:

(*a*) *γένοιτο, μὴ γένοιτο, οὐκ ἂν γένοιτο.*

(*b*) *οὐχ ὅπως αὐτὸν ἀπέκτεινα ἀλλ' οὐδὲ εἶδον.*

(*c*) *οὐκ οἷος τε εἰμὶ μὴ οὐ λέγειν.*

12. Translate into Greek:

Therefore I do not fear that I may not have what I may give to each of my friends, if the affair turn out well; but that I may not have sufficient (friends) to whom I may give.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

ARTS.

FRENCH GRAMMAR AND COMPOSITION.

HONORS.

Examiners :— { W. H. Fraser, B.A.
Rev. F. B. Richard.

Time—Two Hours.

Note.—*Candidates for University Scholarships will take only those questions marked with an asterisk. All other candidates (whether for Pass or Honors, Second Class or First Class Certificates) must take section* II. *and any eight questions in section* I.

I.

1. Of the following personal pronouns state which are conjunctive only, which are disjunctive, and which are used both conjunctively and disjunctively: *elle, toi, me, eux, la, leur, moi, en, lui, les, je, il, te, nous, vous.* Form sentences in illustration of the correct use of the disjunctive pronouns in the list.

* 2. Translate into French:

(*a*) Who is that lady? Which one? This lady near me, or that one farther away?

(*b*) Neither; I mean the one near the door.

(*c*) I thought it was Mrs. B., but it was not she.

(*d*) He who is content with what he has is rich.

(*e*) Give me this, I do not need that.

3. Write one example for each of the following forms, serving as an illustration of its correct use in a sentence: *les siennes, lesquels, la leur, auxquelles, quoi.*

(OVER.)

4. Translate into French:

(*a*) My brother is older than you think; he is older than I am by five years.

(*b*) You are late to-day; you must come earlier to-morrow.

(*c*) It is now half-past twelve o'clock, and we have a great deal to do this afternoon.

(*d*) Well, we shall have to work faster.

(*e*) We are working now as fast as we can.

5. Define the use of *avoir* and *être* respectively as auxiliaries of tense.

6. Translate into French:

(*a*) Although we have given him money, he will not come.

(*b*) I should be very glad if he were to come to Toronto, and if (*que*) he were to come to see me.

(*c*) I am going to your father's; I am to dine at his house this evening.

(*d*) After finishing his lesson, he went to play in the park.

(*e*) There is the house they have bought themselves.

*7. Write a note, with examples, upon the method of expressing negation in French.

8. Translate into French:

(*a*) Where is your father? He is in Hamilton, and my sisters are there too.

(*b*) Do you recollect the 25th of January? I recollect it.

(*c*) How far is it from here to that village? It is three miles.

(*d*) Have you been here long? I have been here since the month of May.

(*e*) If they do not come to-morrow, we shall go without them.

*9. Distinguish, with examples, between the following words: *avant* and *devant; marier* and *épouser; connaître* and *savoir; porter* and *mener; meilleur* and *mieux.*

* 10. Translate into French :

(*a*) Why are you washing your hands? Because I have soiled them at the black-board.

(*b*) Have they heard the news? What do they think of it?

(*c*) The more they think of it the less they speak of it.

(*d*) How much is that carriage worth? It is worth three hundred dollars.

(*e*) Do you owe your shoemaker anything? I owe him for a pair of shoes.

* 11. Write down the 1 sing. past definite (preterit def.) indic., the 2 plur. imperative, and the 3 sing. impf. subjunctive of *tu fusses, tu vas, nous enverrons, vous vainquiez, su, né, ils prennent, vous voudrez, nous irons, mis.*

* 12. Translate into French :

(*a*) Did the clerk bring the money we want? He has gone to the bank for it.

(*b*) Take this letter to him, and bring him back with you.

(*c*) Send for John; I need him.

(*d*) When I was in Ottawa I went to Parliament every day, and wrote home once a week.

(*e*) Did you do so regularly? I did.

* 13. Translate the following, giving explanatory notes on grammatical points involved :

(*a*) Qu'il parte tout de suite.

(*b*) J'ai peur qu'il n'ait trop dit.

(*c*) Il suffit qu'on me craigne.

(*d*) Je suis le seul qui vous connaisse ici.

(*e*) S'il m'eût cru, il n'eût point fait de vers.

14. Translate into French :

(*a*) When will your friends return from England?

(*b*) I expect to see them shortly, and I expect my mother too.

(*c*) Here are the newspapers; when you have read them, please give them to the captain.

(*d*) Tell him to give them to us when he has read them.

(*e*) Where are you going? I am going to the watch-maker's. Will you accompany me there?

*15. Reply to the following in French—each answer to contain not less than six words:

(*a*) Dis-moi, mon ami, quand Rome fut bâtie?

(*b*) Où demeurez-vous à présent?

(*c*) Pourquoi est-ce que cet homme parle si peu?

(*d*) Qu'allez-vous faire pendant les vacances?

(*e*) Qu'est-ce qui est arrivé?

II.

Translate into French:

A celebrated Italian painter had told his pupils to ask the name of any person who might come to his house during his absence in the city. One day three gentlemen came to see the painter, and the latter was not at home. One of the pupils whose name was John opened the door for them, said that his master was not in, and dismissed them without asking their names. When the master returned and heard of the three gentlemen, he asked John who they were. John could say nothing but, "I do not know, sir." The painter got angry (*se mettre en colère*), and John, having taken his pencil, with a few strokes drew the portrait of all three and gave it to his master, who immediately recognized them. The artist admired the skill of the young man so much that he took the drawing and kept it afterwards among his most precious possessions. It is needless to add that he pardoned the pupil.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

ARTS.

FRENCH AUTHORS.

HONORS.

Examiners: { W. H. Fraser, B.A.
Rev. F. B. Richard.

Note.—*Candidates for University Scholarships will take only those questions marked with an asterisk. All other candidates (whether for Pass or Honors, Second Class or First Class Certificates) must take sections* I. *and* IV. *and either* II. *or* III.

I.

Translate:

Abigail, *toujours le livre à la main.* Les reines s'ennuient donc?

La Reine, *lui prenant des mains le livre qu'elle jette sur le guéridon qui est près d'elle.* A périr!... Moi sourtout... S'occuper toute la journée de choses qui ne disent rien au cœur, ni à l'imagination. N'avoir affaire qu'à des gens si positifs, si égoïstes, si arides. Avec eux j'écoute... avec toi je cause: tu as des idées si jeunes et si riantes!

Abigail. Pas toujours!... je suis si triste parfois!

La Reine. Ah! il y a une tristesse qui ne me déplaît pas... comme hier, par exemple, quand nous parlions de mon pauvre frère, qu'ils ont exilé... et que je ne puis revoir ni embrasser, moi, la reine... que par un bill du parlement que je n'obtiendrai peut-être pas!

Abigail. Ah! c'est affreux.

La Reine. N'est-ce pas?... Et pendant que je parlais, je t'ai vu pleurer, et, depuis ce moment-là, toi, qui as su me comprendre, je t'aime comme une compagne, comme une amie.

Abigail. Ah! qu'ils ont raison de vous appeler la bonne reine Anne.

(over.)

La Reine. Oui, je suis bonne. Ils le savent, et ils en abusent... Ils me tormentent, ils m'accablent d'embarras, d'affaires et de demandes ; il leur faut des places : ils en veulent tous ! et tous la même... tous la plus belle !

Abigail. Eh bien ! donnez-leur des honneurs et du pouvoir... moi, je ne veux que vos chagrins.

1. *Les reines s'ennuient* (l. 1), ... *lui prenant des mains* (l. 3). Remark upon the use of the article.

2. *gens si positifs* (l. 6). What peculiarities are there in the agreement of adjectives with the word *gens ?*

3. *avec eux j'écoute* . . . . *avec toi je cause* (l. 7). Distinguish *avec eux* and *chez eux*, *écouter* and *entendre*, *causer* and *parler*.

4. *tu as des idées* (l. 8). Remark upon the use of *tu* as a pronoun of address.

5. *Ils le savent* (l. 21). Express in full in French the antecedent of *le*.

6. To what extent is this drama true to History ?

II.

* Translate :

Bolingbroke, *continuant*. Savez-vous qu'à Malplaquet nous avons perdu trente mille combattants, et que dans leur glorieuse défaite les vaincus n'en ont perdu que huit mille. Et si Louis XIV eût résisté à l'influence de madame de Maintenon, qui est sa duchesse de Marlborough à lui ; si, au lieu de demander aux salons de Versailles un duc de Villeroi pour commander ses armées... Louis XIV eût interrogé les champs de bataille et choisi Vendôme ou Catinat... savez-vous ce qui serait arrivé à nous et à nos alliés ?... Seule contre tous, la France en armes tient tête à l'Europe, et bien commandée elle lui commande. Nous l'avons vu et peut-être le verrions-nous encore : ne l'y contraignons pas !

La Reine. Oui, Bolingbroke, oui, vous qui voulez la paix... vous avez peut-être raison... Mais je ne suis qu'une faible femme, et pour arriver à ce que vous me proposez... il faut un courage que je n'ai pas... Il faut se décider entre vous et des personnes qui, elles aussi, me sont dévouées...

Bolingbroke, *s'animant*. Qui vous trompent... je vous le jure... je vous le prouverai.

La Reine. Non...non...laissez-moi l'ignorer !... Il faudrait encore s'irriter... en vouloir à quelqu'un...je ne le puis.

*1. *interrogé* (l. 7). Give the pres. part., the 1 plur. pres. indic., the 1 sing. imperf. indic., the 1 sing. past def. (preterit def.), and the 3 sing. impf. subj. of this verb.

*2. *à nous et à nos alliés* (l. 9). Why is the disjunctive personal pronoun used?

*3. *et peut-être le verrions-nous* (l. 11). Parse *le*. Write a note on the order of words here.

*4. *personne* (l. 17). Write a note, with examples, on the gender of the word *personne*.

*5. *laissez-moi l'ignorer* (l. 20). Turn the sentence into negative form.

*6. Give an outline of the scene from which the drama takes the name of *Le Verre d'Eau*.

III.

*Translate:

ABIGAIL. Eh bien... il a été convenu que la duchesse, qui a donné hier sa démission de surintendante, viendra aujourd'hui remettre à la reine sa clef des petits appartements. (*Montrant la porte à droite.*) Cette clef qui lui permettait d'entrer chez la reine à toute heure, et sans être vue!...

BOLINGBROKE, *avec impatience.* Je le sais!

ABIGAIL. La reine refusera de la reprendre: la duchesse alors voudra tomber aux pieds de Sa Majesté, qui la relèvera... et elles s'embrasseront, et le bill passera, et le marquis de Torcy, aujourd'hui même...

BOLINGBROKE. O faiblesse de femme et de reine!... et au moment où nous tenions la victoire.

ABIGAIL. Y renoncer à jamais!

BOLINGBROKE. Non... non, la fortune et moi nous nous connaissons trop bien pour nous quitter ainsi!... je l'ai narguée si souvent qu'elle me le rend parfois... mais elle me revient toujours!... Cette réconciliation... entrevue... à quel moment?

ABIGAIL. Dans une demi-heure!

BOLINGBROKE. Il faut que je parle à la reine!...

ABIGAIL. Elle est renfermée avec les ministres qui viennent d'arriver... C'est pour cela qu'on m'a renvoyée.

BOLINGBROKE, *se frappant la tête.* Mon Dieu!...mon Dieu! que faire?... Il faut pourtant que je sache comment s'est tout

à coup éteinte cette haine attisée par moi, et qu'à tout prix je rallumerai ! Mais pour tout cela une demi-heure !...

ABIGAIL, *lui montrant la porte du fond, à gauche, qui s'ouvre.* Quel bonheur !... c'est la reine !

* 1. *nous nous connaissons* (l. 14). Write out in full interrogatively the tense of which the 1 plur. is here given.

* 2. *à quel moment?* (l. 17). Complete the sentence in French.

* 3. *dans une demi-heure* (l. 19). Distinguish from *en une demi-heure.* Examples.

* 4. *renvoyée* (l. 22). Show the irregularities of this verb.

* 5. *comment s'est tout à coup éteinte* (l. 24). Parse *éteinte* in full, giving also the primary tenses (or principal parts) of the verb from which it comes.

* 6. Describe in brief the character of Bolingbroke as developed in the drama, referring to incidents or passages in illustration of your answer.

IV.

* Translate into English:

L' empereur Napoléon Premier devait passer par Luçon pour se rendre à Niort. A l'entrée de l'endroit il fut surpris de voir les préparatifs qu'on avait faits pour le recevoir: c'étaient des arcs de triomphe, érigés à grands frais. Il témoigna au maire, qui vint à sa rencontre à la tête d'une députation, non seulement sa surprise, mais plus encore le plaisir qu'il éprouvait d'une telle réception. Assuré de la bienveillance de l' empereur, l'officier municipal prononça une harangue avec confiance; et à la suite de son discours, recommanda à la générosité inépuisable de sa majesté les habitants de la commune, ajoutant qu'ils n'étaient pas riches. "Mais alors, monsieur le maire," dit l' empereur, d'un air plus qu'étonné, "pourquoi ces apprêts, ces dépenses inutiles? Je me serais bien passé de tout cela, je vous assure." "Ah! sire!" répliqua le maire, "nous avons fait tout ce que nous devions; mais j'avouerai à Votre Majesté que nous devons tout ce que nous avons fait." A cette spirituelle naïveté, l' empereur ne put s'empêcher de rire, et fit remettre à l'officier municipal un rouleau de cent napoléons.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

ARTS.

GERMAN GRAMMAR AND COMPOSITION.

HONORS.

Examiner:—A. F. Chamberlain, M.A.

Time—Two Hours.

Note.—*Candidates for University Scholarships will take only questions marked with an asterisk and will translate the last two sentences under each question taken. All other candidates will take questions* I *and* III *and any three of the remaining questions of Part* I, *and will translate any two of the sentences under each question taken.*

All candidates will take part II.

*I. Give rules for the comparison of adjectives in German. Compare *hoch*, *nah*, *wenig*, *viel*, *grosz*.

Translate:

(*a*) Can you tell me which is better, to live in the country or in the town? Very many like the country better.

(*b*) Gold is more precious (*kostbar*) than silver; there is less gold than silver found in the Province of Ontario.

(*c*) Vienna (*Wien*) is a beautiful city, but not so beautiful as Florence (*Florenz*) which is the finest city in Europe.

(*d*) Come when the days are longest, come when the sun shines brightest, do not wait too long until the leaves fall and the winter approaches (*nahen*).

(*e*) He was a very learned (*gelehrt*) man, and had travelled very far, much farther than you and I have ever been, and had seen the Congo the largest river in Africa.

II. Give rules for the determination of the gender of substantives, according to form. Give examples.

Translate:

(*a*) It is an old custom (*Gebrauch*) and one which all the company ought to respect (*ehren*), and which no stranger ought to violate (*verletzen*). [over.]

(*b*) Although the storm was a fearful one, the vessel is now in the harbour (*Hafen*), and all the men are saved (*retten*) from the perils of the sea.

(*c*) The strength and size of the bear are remarkable, and he must be a man of great courage, who will attack it and hope for success.

(*d*) In the room there is a very valuable picture which represents a maiden of great beauty, the young countess of Nachheim. She is expressing (*ausdrücken*) her gratitude (*Dankbarkeit*) to her friend the Princess of Bornholm.

*III. Write a note on the use of *du*, *ihr*, *Sie*, as pronouns of address in German. Are there any pronouns of address other than these?

Write sentences, of not less than six words, exemplifying the use of each of these three pronouns.

*IV. Explain the use of the auxiliaries of tense in German. Carefully distinguish *sein* and *haben* as auxiliaries of perfect tenses.

Translate:

(*a*) If it had not been for the kind citizens (*Bürger*), the poor people would have had no clothes or shoes to wear.

(*b*) He has had no pleasure during the whole summer for he has been very ill and forced to remain at home.

(*c*) I have not been able to do it for I have not had the time. If you will wait a little longer, perhaps I may be able to finish it.

(*d*) Not long after I went to the country, I saw my brother William who told me he had met your father not far from the village of B.

(*e*) This dog has followed me for more than an hour; he must have left his master altogether.

*V. Compare the use of the Present Participle in English and in German. How is the English present participle to be rendered in German?

Translate:

(*a*) A man passing by me on the street asked me if I knew where you lived. I answered him without stopping more than a few moments.

(*b*) He is not a man to be despised (*verachten*). On the contrary he is to be loved and respected, for he has a good and noble heart and loves his fellow-creatures (*Mitgeschöpf*, n.).

(*c*) He came running towards me, and when he was close by, asked me if I had seen a robber (*Räuber*) passing that way?

(*d*) Being an honest man, I think he may be trusted. Not knowing anything against him, we may not impute (*zuschreiben*) dishonesty (*Unredlichkeit*) to him.

*VI. Describe the uses of the subjunctive and conditional moods in German.

Translate:

(*a*) Would we were only there again?

(*b*) I wish he had stayed in Paris, for we do not want him here.

(*c*) He said that he was ill. He would not come because he was not quite well.

(*d*) He sent me word that he could not come to us to-day.

(*e*) If I had followed your advice, I should now have been rich and happy.

(*f*) Let him go home. Make haste so that you arrive in good time.

(*g*) That may be true. However, I shall do it, whatever the result (*Erfolg*) may be.

VII. Enumerate the prepositions governing the Genitive Case.

Translate:

(*a*) Our house, which is a very beautiful one, stands outside the town near the river.

(*b*) He did that for the sake of his father and not for his own sake.

(*c*) In accordance with the law of the land he was punished (*strafen*) for his crime. In consequence of his misdeeds (*Missetat*, f.) he suffered death.

(*d*) Notwithstanding his many virtues, he was not chosen (*wählen*) in his brother's stead. In spite of the exertions (*Anstrengung*) of good citizens he was not elected.

II.

* Translate into German :

Great Britain (*Grosz-Britannien*) and Ireland (*Irland*) are two large islands to the west of Europe. Great Britain is the larger of the two and consists of (*bestehen aus*) the two kingdoms of England and Scotland and the principality (*Fürstentum*) of Wales. The ruler of the United Kingdom of Great Britain and Ireland is Queen Victoria who was born on the 24th of May, 1819. She was the daughter of the Duke (*Herzog*) of Kent, the younger son of George III. She inherited (*erben*) the throne on the death of William IV. in 1837. She has to assist her in the government of the country a parliament (*Parlament*, n.) which meets (*sich versammeln*) once every year at Westminster. When she appeared before parliament for the first time, Queen Victoria declared (*erklären*) that she would place her trust in (*ihr Vertrauen setzen auf*) the wisdom (*Weisheit*) of her parliament and the love of her people. This promise she has not failed to keep. Having thus early won the hearts of all her subjects (*Untertan*) she has retained (*behalten*) their affection (*Liebe*) during a long and happy reign of more than fifty years. Queen Victoria is a widow (*Wittwe*); her husband (*Gemahl*), Prince Albert of Saxe-Coburg-Gotha (*Sachsen-Coburg*), whom she married (*sich vermählen mit*) in 1840, died in 1861, much regretted by the Queen and the people. This is the fifty-second year of the rule of Queen Victoria and long may she reign (*herrschen*) over us.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

GERMAN.

HONORS.

Examiner:—A. F. Chamberlain, M.A.

Time—One Hour and a Half.

Note.—*Candidates for University Scholarships will take only questions marked with an asterisk. Other candidates are allowed an option between* (*a*) *and* (*b*) *of Part* I *with the questions attached to each of these, and must omit either* (*a*) *or* (*b*) *of Part* III.

Candidates for University Scholarships must take (*a*) *of Part* I, *and* (*a*) *of Part* III.

I.

* Translate:

(*a*) Denn ehe noch der Herzog von Parma mit seiner Brücke zu Stande war, arbeitete schon in den Mauern Antwerpens ein Ingenieur an ihrer Zerstörung. *Friedrich Gianibelli* hiesz dieser Mann, den das Schicksal bestimmt hatte, der Archimed dieser Stadt zu werden, und eine gleiche Geschicklichkeit mit gleich verlorenem Erfolge zu deren Vertheidigung zu verschwenden. Er war aus Mantua gebürtig, und hatte sich ehedem in Madrid gezeigt, um, wie Einige wollen, dem König Philipp seine Dienste in dem niederländischen Krieg anzubieten. Aber vom langen Warten ermüdet, verliesz der beleidigte Künstler den Hof, des Vorsatzes, den Monarchen Spaniens auf eine empfindliche Art mit einem Verdienste bekannt zu machen, das er so wenig zu schätzen gewuszt hatte. Er suchte die Dienste der Königin Elisabeth von England, der erklärten Feindin von Spanien, welche ihn, nachdem sie einige Proben von seiner Kunst gesehen, nach Antwerpen schickte. In dieser Stadt liesz er sich wohnhaft nieder, und widmete derselben in der gegenwärtigen Extremität seine ganze Wissenschaft und den feurigsten Eifer.

Schiller: *Die Belagerung von Antwerpen.*

(over.)

*1. Give the principal parts of: *war*, *hiesz*, *bestimmt*, *verschwenden*, *anzubieten*, *verliesz*, *gewuszt*, *gesehen*.

*2. Parse *den* (l. 4), *deren* (l. 6), *des Vorsatzes* (l. 11), *gesehen* (l. 16), *wohnhaft* (l. 17).

*3. Give the Gender (referring to rules) of *Antwerpens*, *Mauern*, *Stadt*, *Krieg*, *Verdienste*, *Spanien*.

*4. Give the nom. pl. of *Herzog*, *Stande*, *Schicksal*, *Künstler*, *Kunst*, *Wissenschaft*.

*5. *Er war aus Mantua gebürtig*. Express this in other words.

*6. *Wie Einige wollen*. Compare the use of *sollen* in similar expressions.

*7. Translate: He has become a soldier. How sad I felt then!

(*b*) So grosze Ursachen aber die Stadt Antwerpen hatte, die Spanier aus ihren Mauren entfernt zu halten, so wichtige Gründe hatte der spanische Feldherr, sich derselben, um welchen Preis es auch sei, zu bemächtigen. An dem Besitze dieser Stadt hing gewissermaszen der Besitz des ganzen Brabantischen Landes, welches sich grösztentheils durch diesen Kanal mit Getreide aus Seeland versorgte, und durch Einnahme derselben versicherte man sich zugleich die Herrschaft der Schelde. Dem Brabantischen Bunde, der in dieser Stadt seine Versammlungen hielt, wurde mit derselben seine wichtigste Stütze entzogen, der gefährliche Einflusz ihres Beispiels, ihrer Rathschläge, ihres Geldes auf die ganze Partei gehemmt, und in den Schätzen ihrer Bewohner den Kriegsbedürfnissen des Königs eine reiche Hülfsquelle aufgethan. Der Fall derselben muszte, früher oder später, den Fall des ganzen Brabants nach sich ziehen, und das Uebergewicht der Macht in diesen Gegenden entscheidend auf die Seite des Königs neigen.

SCHILLER: *Die Belagerung von Antwerpen*.

1. Give the princpal parts of *halten*, *sei*, *hing*, *entzogen*, *aufgetan*, *muszte*, *ziehen*, *neigen*.

2. Parse *derselben* (l. 3), *sei* (l. 4), *sich* (l. 8), *Bunde* (l. 9), *Macht* (l. 16).

3. Give the nom. pl. of *Feldherr*, *Stadt*, *Bunde*, *Herrschaft*, *Beispiels*, *Königs*.

4. Give the Gender (referring to rules) of *Gründe*, *Einflusz*, *Einnahme*, *Getreide*, *Beispiels*, *Kriegsbedürfnissen*.

5. *Um welchen Preis es auch sei*. Explain clearly and fully the construction.

6. *Land.* Distinguish in meaning the two forms of the Plural. Translate: He has gone to the country.

7. Translate: We have seen Paris the capital (*Hauptstadt*) of France, a large and beautiful city.

II.

*Translate:

„Wohl dem, der frei von Schuld und Fehle
Bewahrt die kindlich reine Seele!
Ihm dürfen wir nicht rachend nahn,
Er wandelt frei des Lebens Bahn.
Doch wehe, wehe, wer verstohlen
Des Mordes schwere Tat vollbracht!
Wir heften uns an seine Sohlen
Das furchbare Geschlecht der Nacht."

SCHILLER: *Die Kraniche des Ibykus.*

*1. Parse *dem* (l. 1), *vollbracht* (l. 6), *Geschlecht* (l. 8).

*2. Distinguish in use the adverbs *gut* and *wohl.*

*3. Note all departures from the ordinary construction.

*4. Give the Gender (referring to rules) of *Schuld, Mordes, Sohlen, Tat.*

*5. Give in full the Present Indicative of *dürfen.*

III.

*Translate:

(*a*)

Treue Liebe bis zum Grabe
Schwör' ich dir mit Herz und Hand!
Was ich bin und was ich habe,
Dank' ich dir, mein Vaterland!

Nicht in Worten nur und Liedern
Ist mein Herz zum Dank bereit,
Mit der Tat will ich's erwidern
Dir in Not, in Kampf und Streit.

In der Freude wie im Leide
Ruf' ich's Freund' und Feinden zu:
Ewig sind vereint wir beide
Und mein Stolz, mein Glück bist du.

Hoffmann von Fallersleben.

(*b*) Ein alter Mann fällte im Walde Holz für den Winter und trug es seiner Hütte zu. Der Weg war lang. Seine Kräfte waren schwach. Verdrießlich warf er unterwegs seine Bürde nieder und flehte den Tod laut um Erlösung. Im Augenblicke stand dieser auch schon vor ihm und fragte ihn um sein Verlangen.

„Nichts verlange ich, ganz und gar nichts," antwortete der Greis erschrocken, „sondern seid so gut und hebt mir diese Last wieder auf den Rücken."

Nach Aesop.

University of Toronto.

ANNUAL EXAMINATIONS: 1889.

JUNIOR MATRICULATION.

GREEK.

HONORS.

Examiner: H. R. FAIRCLOUGH, M.A.

A.

1. Translate:

(*a*) Αὐτὰρ ἐπεὶ σίτου τάρφθεν δμωαί τε καὶ αὐτὴ,
Σφαίρῃ ταί γ' ἄρ' ἔπαιζον, ἀπὸ κρήδεμνα βαλοῦσαι·
Τῇσι δὲ Ναυσικάα λευκώλενος ἤρχετο μολπῆς.
Οἵη δ' Ἄρτεμις εἶσι κατ' οὔρεος ἰοχέαιρα.
Ἢ κατὰ Τηΰγετον περιμήκετον ἢ Ἐρύμανθον,
Τερπομένη κάπροισι καὶ ὠκείῃς ἐλάφοισιν·
Τῇ δέ θ' ἅμα νύμφαι, κοῦραι Διὸς αἰγιόχοιο,
Ἀγρονόμοι παίζουσι· γέγηθε δέ τε φρένα Λητώ·
Πασάων δ' ὑπὲρ ἥ γε κάρη ἔχει ἠδὲ μέτωπα.
Ῥεῖά τ' ἀριγνώτη πέλεται, καλαὶ δέ τε πᾶσαι·
Ὣς ἥ γ' ἀμφιπόλοισι μετέπρεπε παρθένος ἁδμής.

HOMER, *Odyssey* VI.

(*b*) Ἔνθα δέ τέ σφ' ἀγορὴ, καλὸν Ποσιδήϊον ἀμφὶς,
Ῥυτοῖσιν λάεσσι κατωρυχέεσσ' ἀραρυῖα.
Ἔνθα δὲ νηῶν ὅπλα μελαινάων ἀλέγουσιν,
Πείσματα καὶ σπεῖρα, καὶ ἀποξύουσιν ἐρετμά.
Οὐ γὰρ Φαιήκεσσι μέλει βιὸς οὐδὲ φαρέτρη,
Ἀλλ' ἱστοὶ καὶ ἐρετμὰ νεῶν καὶ νῆες ἐΐσαι,
Ἧισιν ἀγαλλόμενοι πολιὴν περόωσι θάλασσαν.
Τῶν ἀλεείνω φῆμιν ἀδευκέα, μή τις ὀπίσσω
Μωμεύῃ· μάλα δ' εἰσὶν ὑπερφίαλοι κατὰ δῆμον.

Ibid.

2. In (*a*): Parse *τάρφθεν*, *ἀπὸ*, *ὑπέρ*. Show the force of the preposition in *κατ' οὔρεος* and *κατὰ Τηΰγετον*. What is the full meaning of *μολπῆς*? Derive *ἰοχέαιρα*, *αἰγιόχοιο*, *ἀδμής*.

3. In (*b*): What is meant by *ῥυτοῖσιν λάεσσι κατωρυχέεσσ' ἀραρυῖα*? Scan the 3rd and 4th lines, commenting on metrical peculiarities.

4. Write a note upon the state of society depicted in this book, quoting or referring to illustrative passages. What Shakespearian heroine has been compared to Nausicäa, and why?

B.

1. Translate:

Ταῦτα μὲν οἶμαι δεῖν ὑπάρχειν ἐπὶ τὰς ἐξαίφνης ταύτας ἀπὸ τῆς οἰκείας χώρας αὐτοῦ στρατείας εἰς Πύλας καὶ Χερρόνησον καὶ Ὄλυνθον καὶ ὅποι βούλεται· δεῖ γὰρ ἐκείνῳ τοῦτ' ἐν τῇ γνώμῃ παραστῆσαι, ὡς ὑμεῖς ἐκ τῆς ἀμελείας ταύτης τῆς ἄγαν, ὥσπερ εἰς Εὔβοιαν καὶ πρότερόν ποτέ φασιν εἰς Ἁλίαρτον καὶ τὰ τελευταῖα πρώην εἰς Πύλας, ἴσως ἂν ὁρμήσαιτε. οὗτοι παντελῶς, οὐδ' εἰ μὴ ποιήσαιτ' ἂν ἤδη, ὡς ἔγωγέ φημι δεῖν, εὐκαταφρόνητον ἔσται· ἵν' ἢ διὰ τὸν φόβον, εἰδὼς εὐτρεπεῖς ὑμᾶς — εἴσεται γὰρ ἀκριβῶς· εἰσὶ γὰρ εἰσὶν οἱ πάντ' ἐξαγγέλλοντες ἐκείνῳ παρ' ἡμῶν αὐτῶν πλείους τοῦ δέοντος — ἡσυχίαν ἔχῃ, ἢ παριδὼν ταῦτ' ἀφύλακτος ληφθῇ, μηδενὸς ὄντος ἐμποδὼν πλεῖν ἐπὶ τὴν ἐκείνου χώραν ὑμῖν, ἂν ἐνδῷ καιρόν.

DEMOSTHENES, *Philippics* I.

2. What is the syntax of *ἐκείνῳ* (*τοῦτο ἐν τῇ*), and of *πλείους*? Why *μηδενός*, and not *οὐδενός*?

3. Write notes upon the expeditions referred to in *ὥσπερ εἰς ... Πύλας*.

4. Translate:

Τοιγαροῦν ἅμ' ἀκηκόαμέν τι, καὶ τριηράρχους καθίσταμεν, καὶ τούτοις ἀντιδόσεις ποιούμεθα, καὶ περὶ χρημάτων πόρου σκοποῦμεν, καὶ μετὰ ταῦτ' ἐμβαίνειν τοὺς μετοίκους ἔδοξε καὶ τοὺς χωρὶς οἰκοῦντας, εἶτ' αὐτοὺς πάλιν ἀντεμβιβάζειν, εἶτ' ἐν ὅσῳ ταῦτα μέλλεται, προαπόλωλε τὸ ἐφ' ᾧ ἂν ἐκπλέωμεν·

τὸν γὰρ τοῦ πράττειν χρόνον εἰς τὸ παρασκευάζεσθαι ἀναλίσκομεν, οἱ δὲ τῶν πραγμάτων καιροὶ οὐ μένουσιν τὴν ἡμετέραν βραδυτῆτα καὶ εἰρωνείαν.

Ibid.

5. Write short notes on τριηράρχους, ἀντιδόσεις, μετοίκους.

6. Translate:

"Πῶς γὰρ οἴεσθ'" ἔφην "ὦ ἄνδρες Μεσσήνιοι δυσχερῶς ἀκούειν Ὀλυνθίους, εἴ τίς τι λέγοι κατὰ Φιλίππου κατ' ἐκείνους τοὺς χρόνους, ὅτ' Ἀνθεμοῦντα μὲν αὐτοῖς ἀφίει, ἧς πάντες οἱ πρότερον Μακεδονίας βασιλεῖς ἀντεποιοῦντο, Ποτείδαιαν δ' ἐδίδου τοὺς Ἀθηναίων ἀποίκους ἐκβάλλων, καὶ τὴν μὲν ἔχθραν τὴν πρὸς ὑμᾶς αὐτὸς ἀνῄρητο, τὴν χώραν δ' ἐκείνοις ἐδεδώκει καρποῦσθαι; ἆρα προσδοκᾶν αὐτοὺς τοιαῦτα πείσεσθαι, ἢ λέγοντος ἄν τινος πιστεῦσαι οἴεσθε; ἀλλ' ὅμως" ἔφην ἐγὼ "μικρὸν χρόνον τὴν ἀλλοτρίαν καρπωσάμενοι, πολὺν τῆς ἑαυτῶν ὑπ' ἐκείνου στέρονται, αἰσχρῶς ἐκπεσόντες, οὐ κρατηθέντες μόνον, ἀλλὰ καὶ προδοθέντες ὑπ' ἀλλήλων καὶ πραθέντες· οὐ γὰρ ἀσφαλεῖς ταῖς πολιτείαις αἱ πρὸς τοὺς τυράννους αὗται λίαν ὁμιλίαι."

Ibid. II.

7. Explain the form of the conditional clause in εἴ τίς τι λέγοι. Parse ἀφίει, ἀνῄρητο, τινος, πολὺν, πραθέντες.

8. ἧς ... ἀντεποιοῦντο. What other verbs govern the genitive case?

9. Give a summary of the leading events in Greek history between the dates of the 1st and 2nd Philippics.

C.

Translate literally:

Ἐκ τούτου δὲ ὁ Καλλικρατίδας συγκαλέσας τοὺς Λακεδαιμονίων ἐκεῖ παρόντας ἔλεγεν αὐτοῖς τοιάδε. Ἐμοὶ μὲν ἀρκεῖ οἴκοι μένειν, καὶ εἴτε Λύσανδρος εἴτε ἄλλος τις ἐμπειρότερος περὶ τὰ ναυτικὰ βούλεται εἶναι, οὐ κωλύω τὸ κατ' ἐμέ· ἐγὼ δ' ὑπὸ τῆς πόλεως ἐπὶ τὰς ναῦς πεμφθεὶς οὐκ ἔχω τί ἄλλο ποιῶ ἢ τὰ κελευόμενα ὡς ἂν δύνωμαι κράτιστα. ὑμεῖς δὲ πρὸς ἃ ἐγώ τε φιλοτιμοῦμαι καὶ ἡ πόλις ἡμῶν αἰτιάζεται, ἴστε γὰρ αὐτὰ ὥσπερ καὶ ἐγώ, συμβουλεύετε τὰ

τὰ ἄριστα ὑμῖν δοκοῦντα εἶναι περὶ τοῦ ἐμὲ ἐνθάδε μένειν ἢ οἴκαδε ἀποπλεῖν ἐροῦντα τὰ καθεστῶτα ἐνθάδε. Οὐδενὸς δὲ τολμήσαντος ἄλλο τι εἰπεῖν ἢ τοῖς οἴκοι πείθεσθαι ποιεῖν τε ἐφ' ἃ ἥκει, ἐλθὼν παρὰ Κῦρον ᾔτει μισθὸν τοῖς ναύταις· ὁ δὲ αὐτῷ εἶπε δύο ἡμέρας ἐπισχεῖν· Καλλικρατίδας δὲ ἀχθεσθεὶς τῇ ἀναβολῇ καὶ ταῖς ἐπὶ τὰς θύρας φοιτήσεσιν, ὀργισθεὶς καὶ εἰπὼν ἀθλιωτάτους εἶναι τοὺς Ἕλληνας, ὅτι βαρβάρους κολακεύουσιν ἕνεκα ἀργυρίου, φάσκων τε, ἢν σωθῇ οἴκαδε, κατά γε τὸ αὐτοῦ δυνατὸν διαλλάξειν Ἀθηναίους καὶ Λακεδαιμονίους, ἀπέπλευσεν εἰς Μίλητον.

XENOPHON, *Historia Græca* I.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

ENGLISH GRAMMAR.

PASS.

Examiner:—David Reid Keys, M.A.

Note.—*Candidates for University Scholarships will take only those questions marked with an asterisk. All other candidates (whether for Pass or Honors, Second Class or First Class Certificates) must take the first five questions and any two of the remainder.*

*1. "Presently he reached the edge of the ridge, whence the rough track he was following sank sharply to the lower levels. Here was a marvellous point of view, and the Rector stood a moment, beside a bare weather-blasted fir, a ghostly shadow thrown behind him. All around the gorse and heather seemed still radiating light, as though the air had been so drenched in sunshine that even long after the sun had vanished the invading darkness found itself still unable to win firm possession of earth and sky. Every little stone in the sandy road was still weirdly visible: the color of the heather, now in lavish bloom, could be felt though hardly seen."

(*a*) Make a list of the words of Latin origin in the above passage, giving the Latin root in each case.

(*b*) Analyse the second sentence: "Here.....behind him."

(*c*) Parse all adverbs in the third sentence: "All around.... and sky."

(*d*) Explain the difference in the grammatical function of *following, radiating, invading;* and of *sharply* and *ghostly.* Give examples of other powers of the termination *ing.*

(*e*) *drenched.* What is the grammatical relation between this word and *drink?* Give two pairs of words similarly related.

(*f*) *weather-blasted, sunshine.* How do these words illustrate the subject of word-composition?

(*g*) What is the force and origin of the suffix in: *sharply, marvellous, Rector, sandy, visible?*

(*h*) Why has *Rector* a capital?

(*i*) Explain the punctuation of the last sentence. (over.)

*2. Indicate the pronunciation (marking the accent where necessary) of: creek, implacable, often, peremptory, pursuit, student, were.

3. Distinguish carefully between the two conjugations of English verbs.

*4. What is the difference in meaning or in use between:—
"I shall do it to-morrow", and "I will do it to-morrow"; "If it is true", and "If it be true"; "They love each other", and "They love one another"; "He dares not do it", and "He dare not do it"; "O" and "Oh"?

*5. What has been the effect of the Norman Conquest upon English Accidence?

*6. Illustrate by examples the various syntactical relations in which a noun may be used in an English sentence.

*7. What are the special characteristics of the Relative Pronoun?

*8. Explain the meaning of the term *Case*, and criticise the use made of it in English grammar.

9. A short article upon Comparison of Adjectives.

*10. Give arguments for and against the use of the expressions: "It is me"; "To-morrow is Friday".

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

ARTS.

ENGLISH COMPOSITION AND PROSE LITERATURE.

PASS AND HONORS.

Examiners: { A. H. Reynar, M.A., / David Reid Keys, M.A.

Note.—*Candidates for University Scholarships will take only those questions marked with an asterisk. All other candidates (whether for Pass or Honors, Second Class or First Class Certificates) must take the first four questions and any two of the remainder.*

*** *Pass Candidates are warned that part* I *counts half the paper.*

I.

*1. Write a Composition on:—

The Genius of Goldsmith as illustrated in the Citizen of the World.

II.

*2. Explain the title, "The Citizen of the World." Under what circumstances were these essays written? Who were Goldsmith's models in this style of writing?

*3. "The distinctions of polite nations are few; but such as are peculiar to the Chinese appear in every page of the following correspondence. The metaphors and allusions are all drawn from the East. Their formality our author carefully preserves. Many of their favorite tenets in morals are illustrated. The Chinese are always concise; so is he. Simple; so is he. The Chinese are grave and sententious; so is he. But in one particular the resemblance is peculiarly striking: the Chinese are

(OVER.)

often dull; and so is he. Nor has my assistance been wanting. We are told in an old romance of a certain knight-errant and his horse who contracted an intimate friendship. The horse most usually bore the knight; but in cases of extraordinary dispatch the knight returned the favor and carried his horse. Thus in the intimacy between my author and me, he has usually given me a lift of his Eastern sublimity, and I have sometimes given him a return of my colloquial ease.

Yet it appears strange in this season of panegyric when scarcely an author passes unpraised either by his friends or himself, that such merit as our philosopher's should be forgotten. While the epithets of ingenious, copious, elaborate, and refined are lavished among the mob like medals at a coronation, the lucky prizes fall on every side, but not one on him. I could on this occasion make myself melancholy, by considering the capriciousness of public taste, or the mutability of fortune; but during this fit of morality, lest my reader should sleep, I'll take a nap myself, and when I awake tell him my dream."

(*a*) State the subject of each of these paragraphs. How is the transition made?

(*b*) Cite or refer to examples of the Chinese peculiarities in these Essays.

(*c*) Distinguish between: *metaphor* and *simile; tenet* and *doctrine; formality* and *stiffness; concise* and *precise; simple* and *clear; romance* and *novel.*

(*d*) Derive *sententious, romance, knight-errant.*

(*e*) Note any words used in a different sense from that now given them, and explain the distinction.

(*f*) *panegyric.* Give synonymous words and distinguish carefully in meaning.

* 4. Rewrite the second paragraph, substituting words of Old English (Anglo-Saxon) origin where you can.

* 5. Criticise Goldsmith's use of figurative language.

6. Describe the visit to the Club of Authors.

* 7. Sketch the character of the Man in Black.

8. Compare Beau Tibbs with a modern dandy.

* 9. Compare Goldsmith as an essayist with the writer of the Victorian age who, in your opinion, most resembles him.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

ENGLISH POETICAL LITERATURE.

Examiner:—David Reid Keys, M.A.

NOTE.—*Candidates for University Scholarships will take only those questions marked with an asterisk. All other candidates (whether for Pass or Honors, Second Class or First Class Certificates) must take the first six questions and any two of the remainder.*

I.

Breathes there the man, with soul so dead,
Who never to himself hath said,
  This is my own, my native land!
Whose heart hath ne'er within him burned,
As home his footsteps he hath turned,
  From wandering on a foreign strand!
If such there breathe, go, mark him well;
For him no Minstrel raptures swell;
High though his titles, proud his name,
Boundless his wealth as wish can claim;
Despite those titles, power and pelf,
The wretch concentred all in self,
Living shall forfeit his renown,
And, doubly dying, shall go down
To the vile dust from whence he sprung,
Unwept, unhonor'd, and unsung.

II.

O Caledonia! stern and wild,
Meet nurse for a poetic child!
Land of brown heath and shaggy wood,
Land of the mountain and the flood,
Land of my sires! what mortal hand
Can e'er untie the filial band,
That knits me to thy rugged strand!
Still, as I view each well known scene;
Think what is now, and what hath been,
Seems as, to me, of all bereft
Sole friends thy woods and streams were left,

(over).

And thus I love them better still,
Even in extremity of ill.
By Yarrow's streams still let me stray,
Though none should guide my feeble way;
Still feel the breeze down Ettrick break,
Although it chill my withered cheek;
Still lay my head by Teviot Stone,
Though there, forgotten and alone,
The bard may draw his parting groan.

*1. (*a*) To what causes is the popularity of the above passage due?

(*b*) State the subject of each of these stanzas, and show how they are connected with each other and with the general plan of the poem.

(*c*) Explain the various reasons for preferring the poet's word to that with which it is coupled in the following cases:— *breathes*, l. 1, and *lives*; *hath*, l. 2, and *has*; *meet*, l. 18, and *fit*; *knits*, l. 23, and *binds*; *parting*, l. 36, and *dying*.

(*d*) By what rhetorical means has the author heightened the effect of lines 17-23?

(*e*) Explain the italicized passages.

(*f*) What words seem to be used owing to the exigencies of rime?

(*g*) Derive *pelf*, *minstrel*, *stern*, *child*, *sires*.

(*h*) In what part of Scotland are Yarrow, Ettrick and Teviot? What special interest has each for the student of poetical literature?

*2. To what class of poetry does "The Lay of the Last Minstrel" belong? How does it gain by the Minstrel telling it, instead of Scott himself?

*3. What part in the story is played by the Goblin Page?

*4. Show how the poem reflects its author's character

5. Explain the following passages:

(*a*) Our slogan is their lyke-wake dirge.

(*b*) Me lists not at this tide declare.

(*c*) A merlin sat upon her wrist,
Held by a leash of silken twist.

(*d*) Both Scots and Southern chiefs prolong
Applauses of Fitztraver's song;
These hated Henry's name as death,
And those still held the ancient faith.

(*e*) The standers-by might hear uneath,
Footstep, or voice, or high drawn breath.

*6. Quote one (but *not more than one*) of the following descriptions:

The Minstrel.

Melrose Abbey.

The Opening of the Wizard's Grave.

*7. Scott has been charged with describing forms and externals more at length than inward feelings. Give your views on this subject with illustrative quotations.

*8. How has the author taken advantage of feudal institutions to add interest to his poem? What are its deficiencies as a picture of feudalism?

*9. Criticise the literary style of "The Lay of the Last Minstrel."

10. Criticise the introduction of supernatural machinery into the poem.

*11. Indicate Scott's place among the poets of his time.

*12. Compare his poetry with that of Tennyson.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

FACULTY OF ARTS.

HISTORY AND GEOGRAPHY.

PASS.

Examiner—T. Arnold Haultain, M.A.

Note—*Candidates for University Scholarships will take only those questions marked with an asterisk. All other candidates (whether for Pass or Honors, Second Class or First Class Certificates) must take the first seven questions and any three of the remainder.*

*1. Sketch the career of Themistocles.

*2. Remark on the political measures proposed by C. Sempronius Gracchus.

*3. What and where were Phocis, Cythera Colophon; Lucania, Lilybæum, Cumæ?

*4. Describe a method for ascertaining the circumference of the earth.

*5. State the area, boundaries, and chief productions of Montana, Washington, and North and South Dakota.

*6. Give generally the course of each of the chief canals of Canada.

*7. Describe briefly the international political relationships subsisting between the great European powers immediately prior to the conclusion of the peace of Amiens, 1802. (over.)

*8. Write a short note on the British North America Act.

*9. "*It is indeed from the fatal years which lie between the peace of Amiens and Waterloo that we must date that war of classes, that social severance between rich and poor, between employers and employed, which still forms the great difficulty of English politics.*" —GREEN.

Explain tersely what the historian means by this assertion.

*10. Write short notes on each of the following:—"Declaration of Rights" (1689); Stamp Act; Poynnig's Act; Fox's India Bill; Act of Union with Ireland; abolition of the slave trade (1807).

11. Follow (very briefly) Clive through his Indian career.

12. Write short notes on each of the following:—the letters of "Junius"; the first public reports of Parliamentary debates; Burke's attitude towards the French revolution; the prosecution of the *North Briton*.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

ARITHMETIC.

Examiners: W. H. Ballard, M.A.; J. McGowan, B.A.; A. R. Bain, M.A.

NOTE.—*Candidates for University Scholarships will take only those questions marked with an asterisk. All other candidates (whether for Pass or Honors, Second Class or First Class Certificates) must take the first three questions and any six of the remainder.*

1. A note for $876, dated May 17, for 90 days, and bearing interest at the rate of 8 per cent. per annum, is discounted at a bank on July 3 at 6 per cent. What are the proceeds of the note?

2. Explain the terms Exchange, Bill of Exchange, Par of Exchange.

What is meant by saying "the rate of sterling exchange is $4·87 for 60-day bills"?

How is the par of exchange between two countries arrived at?

3. What capital should be invested in 6 per cent. stock at 104 to produce an income one-third greater than that derived from $1500 invested in 7 per cent. stock at 115?

What rate of interest is received on the money invested in each case?

*4. Prove that a vulgar fraction may always be reduced to a terminated or to a repeating decimal.

Explain any short method of reducing $\frac{18}{19}$ to a repeating decimal.

*5. Explain the method of contracted multiplication of decimals.

Employ this method to find the number of cubic yards in a cubic metre correct to 4 decimal places, a metre being equal to 1.09363 yds. linear measure.

(OVER.)

*6. A rectangular solid is hammered until its length is increased 10 per cent., and its width 15 per cent.; by how much per cent. has its thickness been diminished?

*7. The cost of manufacturing a certain article depends partly on the cost of labor and partly on the cost of the raw material. Wages rise 25 per cent., but a reduction of one-sixth in the cost of material enables the manufacturer to produce 16 of the articles for what 15 cost him before the change. How much does the raw material for $100 worth of the manufactured article now cost him?

*8. The expense of constructing a railroad is $2000000, two-fifths of which was borrowed on mortgage at 5 per cent., and the remaining three-fifths was held in shares. What must be the average weekly receipts so as to pay the shareholders 4 per cent., the expenses of working the road being 55 per cent. of the gross receipts?

*9. A person buys a house and lot—the lot being worth $\frac{2}{5}$ as much as the house—and lets to a tenant at a monthly rental of one per cent. on the cost of the property. He finds that the lot will rise 5 per cent. and the house depreciate 4 per cent. in value every year, that insurance (on $\frac{4}{5}$ of the value of the property insured) will cost him $1\frac{1}{4}$ per cent., every three years, that his taxes will be 18 mills on the dollar, and that the assessors have valued his property at 10 per cent. less than he gave for it. What rate per cent. will he receive on the money he has invested?

*10. An invoice of British merchandise, amounting to £20,000 and subject to an *ad valorem* duty of 35 per cent., is received at New York and converted into U.S. money at the rate of $4·844 to the pound sterling instead of $4·8665, the true value: how much is gained or lost by the difference and by whom?

*11. In 1837 the U. S. half-dollar was changed in weight from 208 grains to $206\frac{1}{4}$ grs., and in fineness from ·8924 io ·900; find the least whole numbers which will show the relative values of the coins before and after the change.

*12. A leaves P for Q, 39 miles distant, at the same time that B leaves Q for P; they travel at uniform rates of speed till they meet. B then increases his speed one-eighth and reaches P in 5 hours from the time he met A; while A, after resting for an hour, proceeds at $\frac{9}{10}$ his former rate and reaches Q at the same time that B reaches P. Find the rate at which each person set out.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

ALGEBRA.

PASS.

Examiners: A. R. Bain, M.A.; W. H. Ballard, M.A.; J. McGowan, B.A.

NOTE.—*Candidates for University Scholarships will take only those questions marked with an asterisk. All other candidates (whether for Pass or Honors, Second Class or First Class Certificates) must take the first three questions and any five of the remainder.*

1. Prove

(1) $(-a) \times (-b) = +ab$;

(2) $\frac{a}{b} \div \frac{c}{d} = \frac{ad}{bc}$;

(3) $a^m \times a^n = a^{m+n}$.

2. Solve

(1) $13x - 8y + 21z + 19 = 0$,
$19x + 6y + 14z + 7 = 0$,
$x + 24y + 35z + 13 = 0$;

(2) $\frac{a}{x} + \frac{b}{y} = 5$,
$\frac{b}{2x} - \frac{a}{3y} = \frac{b^2 - a^2}{ab}$.

*3. Solve

(1) $2x^2 - 3xy + 11y^2 = 1$,
$3x^2 - 5xy + 5y^2 = 3$;

(2) $\frac{x}{x+3} + \frac{1}{\sqrt{x+3}} = \frac{6}{x}$.

(OVER.)

* 4. Factor

(1) $(a+b+c)^4+a^4-(b+c)^4+b^4-(c+a^4)+c^4-(a+b)^4$;

(2) $(x+yz)(y+zx)(z+xy)+(x^2-1)(y^2-1)(z^2-1)$.

5. If $\frac{a}{b}=\frac{c}{d}=\frac{e}{f}$ shew that $\frac{a}{b}=\frac{a+c+e}{b+d+f}$.

State and prove the more general theorem of which this is a particular case.

If $\frac{x}{a}=\frac{y}{b}=\frac{z}{c}$, shew that $\frac{(x-y)(y-z)(z-x)}{(a-b)(b-c)(c-a)}=\frac{xyz}{abc}$.

* 6. Employ Horner's method of division to divide

(1) $12x^5+21x^4y-20x^3y^2-86x^2y^3+85y^5$ by $3x^2-5y^2$;

(2) 1 by $1-x+x^2$ to six terms in the quotient, and write down the remainder.

Shew that the next six terms may be obtained without actually dividing.

* 7. Find the value of

(1) $(x-1)^4$ when $x=\sqrt{-1}$;

(2) $\frac{\sqrt{a+x}+\sqrt{a-x}}{\sqrt{a+x}-\sqrt{a-x}}$ when $x=\frac{2ac}{1+c^2}$.

*8. Eliminate x and y from

$$x(y+9)=5(y+1),$$
$$(x+7)(y-1)=0,$$
$$xy=m.$$

* 9. Shew that $ax^2+bx+c=a(x-p)(x-q)$ where p, q are the roots of the equation $ax^2+bx+c=0$.

One of the roots of the equation $24x^3-46x^2+29x=6$, is $\frac{3}{4}$, find the other two roots.

10. If $\frac{x}{a-b-c}=\frac{y}{b-c-a}=\frac{z}{c-a-b}$

shew that

$$(b-c)x+(c-a)y+(a-b)z=0;$$

and that

$$a(y-z)+b(z-x)+c(x-y)=0.$$

*11. Solve the equations

$$a=bz+cy,$$
$$b=cx+az,$$
$$c=ay+bx:$$

and shew that

$$\frac{1-x^2}{a^2}=\frac{1-y^2}{b^2}=\frac{1-z^2}{c^2}.$$

*12. A person borrows \$1000 for two years and discharges the debt by paying \$600 at the end of one year and \$600 at the end of two years. What rate per cent. per annum (compound) interest did he pay?

*13. A square plot of ground is surrounded by a gravel walk of uniform width which covers 891 sq. ft. of ground. Outside this walk, at a uniform distance of half the length of the plot is a second walk (of the same width as the first,) which covers 1903 sq. ft. of ground. Find the size of the plot.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

EUCLID.

ARTS AND MEDICINE.

Examiners: J. McGowan, B.A.; A. R. Bain, M.A.; W. H. Ballard, M.A.

NOTE—*Candidates for Scholarships are required to take the whole paper. All other candidates (whether for Pass or Honors, Second or First Class Certificates) will take any eight of the questions.*

1. Define *right line, right angle, parallel right lines, rectangle, tangent to a circle, angle in a segment;* and give Euclid's axioms concerning right lines and right angles.

Use the axiom, "Two straight lines which intersect one another cannot be both parallel to the same straight line," to prove that straight lines which are parallel to the same straight line are parallel to one another.

2. If two triangles have two sides of the one equal to two sides of the other, each to each, and have likewise their bases equal, the angle which is contained by two sides of the one shall be equal to the angle which is contained by the two sides of the other.

X A B and Y A B are isosceles triangles on the same base AB, the line joining X, Y, produced if necessary, bisects AB at right angles.

3. If one angle of a triangle be greater than another, the side opposite the greater angle shall be greater than the side opposite the less angle.

Prove by superposition, that if two right-angled triangles have a side and hypotenuse of one equal respectively to a side and hypotenuse of the other, the triangles are equal in all respects.

(OVER.)

4. The square described on the hypotenuse of a right-angled triangle is equal to the sum of the squares on the sides containing the right angle.

Divide a given straight line into two parts such that the sum of the squares on them may be equal to a given square.

5. If there be two straight lines, one of which is divided into any number of parts, the rectangle contained by the two straight lines is equal to the sum of the rectangles contained by the undivided line and the several parts of the divided line.

If A, B, C, D are points taken in order on a right line, then will

$$AB \cdot CD + BC \cdot AD = AC \cdot BD .$$

6. If a straight line be divided into any two parts, the sum of the squares on the whole line and on one of the parts is equal to twice the rectangle contained by the whole and that part, together with the square on the other part.

Give the corresponding algebraical formula.

7. To divide a given straight line so that the rectangle contained by the whole and one part may be equal to the square on the other part.

Find a point in the line produced which divides the line into segments satisfying the above condition.

8. If two circles touch one another internally, the straight line which joins their centres, being produced, shall pass through the point of contact.

What is assumed in the above enunciation?

Two circles whose centres are A and B touch one another internally, and a straight line is drawn through the point of contact cutting the circumference in P and Q; shew that the radii AP and BQ are parallel.

9. Equal chords in a circle are equidistant from the centre; and, conversely, chords which are equidistant from the centre are equal.

If two equal chords of a circle intersect, shew that the segments of the one are equal respectively to the segments of the other.

10. Angles in the same segment of a circle are equal.

Through one of the points of intersection of two circles a line is drawn; shew that the part of this line intercepted by the circumferences of the circle subtends a constant angle at the other point of intersection.

11. If a straight line touch a circle, and from the point of contact a chord be drawn, the angles which this chord makes with the tangent shall be equal to the angles in the alternate segments of the circle.

The perpendiculars dropped on the chord and on the tangent from the middle point of either arc cut off by the chord are equal.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

BOTANY.

PASS.

Examiner:—J. J. Mackenzie, B.A.

Note.—*Six questions constitute a full paper, No more are to be answered, All candidates must take Questions 1, 2 and 3. Candidates for Honors must take questions marked* *

*1. Give an accurate description of the plant submitted.

*2. Refer it to its proper position amongst Phanerogams, and mention several allied Canadian species.

*3. Illustrate fully by drawings the structure of the ovary in the plant before you.

*4. What do we understand by dioecious flowers. Mention some Canadian examples.

*5. Give an account of the different methods of distributing the seed, illustrating your examples from the Geraniaceae, Compositae and Borraginaceae.

*6. Give an account of the peculiar characters belonging to Saprophytic and Parasitic plants, and mention some Canadian examples of each.

7. Define the following terms: culma, stolon, rhizome, tendril, prickle and spur. Give example of plants where they occur.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

CHEMISTRY.

ARTS: PASS. MEDICINE: HONORS.

Examiner—ANTHONY MCGILL, B.A.: B.Sc.

NOTE.—*Candidates for Honors and Scholarships will take* ALL *the questions. Other candidates will take the first* THREE, *and any* TWO *of the remainder.*

1. Combustion is merely a case of chemical combination. How would you shew experimentally that in the case of two gases A and B, mutually combustible, it is as true that A burns in B, as that B burns in A? Give specific names to the gases chosen in illustration of your answer; and diagrams of the apparatus you have employed, or seen employed.

2. (*a*) Describe a mode of preparing each of the oxides of carbon, with diagrams of apparatus needed.

(*b*) Calculate the weight of materials required to produce 10 litres of each gas.

3. Ten grams of sand, 10 grams of sulphate of soda, and 10 grams of hydrochloric acid, are thoroughly shaken together with 1 litre of water. How would you effect the separation of the ingredients?

4. Define Specific Heat, and give an account of any work you have done in determining the specific heat of a solid; with diagrams of the apparatus used.

5. What would you expect to happen in each of the following cases? Give equations:

(*a*) Barium dioxide is boiled with hydrochloric acid.

(*b*) Solutions of ammonium chloride and silver nitrate are mixed. The solution is filtered clear from any precipitate, and evaporated to dryness. The dry residue is strongly heated.

(OVER).

(*c*) Calcium chloride in solution is mixed with solution of ammonium carbonate. The precipitate is dried, and strongly heated in a crucible.

6. What are the various impurities that exist in natural waters? Describe modes by which their presence in a particular sample may be determined, and how water containing them may be made pure.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

PHYSICS.

PASS AND HONORS.

Examiner:—THOMAS MULVEY, B.A.

KINEMATICS AND DYNAMICS.

[*Pass candidates will answer not less than four and not more than six of the first ten questions.*]

1. Define velocity, acceleration, momentum, mass, weight, work, and energy.

2. A body is moving with a uniform acceleration in a straight line, determine the space traversed in a given time.

3. A body has been falling freely for five seconds, find how far it will fall in the next second.

4. Describe an experiment for determining the acceleration of gravity.

5. State and explain Newton's second law of motion.

6. State and explain the Principle of the Parallelogram of Forces.

7. What is the component of a force in a given direction.

8. A body weighing 10 lbs. rests on a smooth plane inclined at an angle 30° to the horizon. Find the force acting (1) in a horizontal, (2) in a vertical direction, (3) along the plane that will sustain it.

9. Define the Centre of Gravity of a body.

10. Three men carry a heavy table, one at one end and one at each of the corners of the opposite end. Find the weight supported by each.

(OVER.)

[*Candidates for Honors will answer the first, second, fourth, fifth and sixth questions above, together with the following:*]

11. Define the "measure of a force."

12. Find the two forces which, when acting at an angle of 60°, have a resultant $\sqrt{37}$, and when acting at right angles have a resultant 5.

13. A body is projected horizontally from the top of a cliff and another is dropped vertically downwards. Explain why they reach the horizontal ground at the same instant.

[*Additional for candidates for Scholarships:*]

14. Three forces act on a body; state fully the conditions of equilibrium.

15. Describe the common balance.

A body when weighed in one pan of a false balance has an apparent weight of 100 gms., when transferred to the other pan has an apparent weight of 105 gms. Find its true weight and the ratio of the arms of the balance.

HYDROSTATICS.

[*Pass candidates will answer not less than three and not more than five of the first eight questions.*]

1. What is the pressure at a point? How is it measured?

Explain the statement that the pressure at a point is the same in every direction.

2. Describe a practical method of determining a pressure at a point.

3. Prove that the free surface of a liquid at rest is a horizontal plane.

4. Find the pressure on the circular base of a vessel 35 c.m. in diameter at a depth of 245. c.m. Specific gravity of liquid 13·567.

5. State and explain the law of the transmissibility of fluid pressure. Give an example.

6. Explain why a balloon inflated with gas ascends.

7. Describe and explain the barometer, the common pump and Nicholson's Hydrometer.

8. Explain why a common pump must be of less than a certain length.

[*Candidates for Honors will answer the first, second, fifth and seventh questions above, together with the following :*]

9. Define the centre of pressure.

Find the pressure at the four corners required to keep in position a vertical flood gate 30 c.m. by 18 c.m., the depth below the surface of the water of the highest edge of the gate being 54 c.m.

10. Determine the conditions of equilibrium of a floating body.

11. State and explain Boyle's Law.

12. A block of wood floats in a vessel of water under the receiver of an air pump; as the air is withdrawn from the receiver describe the effect on the block of wood.

[*Addition for candidates for Scholarships.*]

13. When the pressure of the atmosphere is $770^{m.m.}$ the mercury stands at $735^{m.m.}$ in a faulty barometer of uniform bore, and when the pressure is $755^{m.m.}$ it stands at $730^{m.m.}$ Find the length of the tube which the air would occupy at the normal pressure.

14. A cylinder of wood of diameter 70 m.m., length 125 m.m., specific gravity .6478, stands on the plane horizontal base of a cylindrical vessel of diameter 105 m.m.; water is poured in to the height of 250 m.m. Find the pressure on the part of the base of the vessel in contact with the wood.

If the wood be disturbed and floats, find the change of the pressure.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

LATIN GRAMMAR AND COMPOSITION.

ARTS AND MEDICINE.

Examiner:—H. R. Fairclough, M.A.

Time—One Hour and a Half.

Note.—*Candidates in Medicine will take section A; all other candidates (whether for Pass or Honors, Second Class or First Class Certificates) will take both sections.*

A.

Translate into Latin:

1. He said that he had seen me.

2. He promised to send Publius to announce the victory to Cæsar.

3. I have already been at Rome two years.

4. Do not, my countrymen, fear that you will be envied.

5. Be sure to report to me the character and extent of the loss.

6. We must not abandon the city.

7. General Roberts, on inquiry, found out that there were only two routes (*iter*) by which he could reach Cabul (*Ortospana*), and so he determined to wait until the rest of the troops he had ordered from each state could assemble and march with him. At last they all collected at the first pass (*angustiae*), and then he felt that the hour had come to strike (*injicere*) terror into the turbulent Afghans; and so he called together his officers (*legati*) and chiefs of the allies, and reminded (*commonefacere*) them of the former disaster at Cabul. He bade them wipe out that disgrace, and revenge (*persequi*) the murder of the brave officer who had perished because he had trusted too much in the professions of the Afghans. He pointed out that the honor of England and her rule in India were at stake (*agi de*), and therefore he urged all to unite in crushing for ever their long-hated foes.

(over.)

B.

1. Decline together *bona dea*, *anceps iter*, *meus Vergilius*.

2. Give the genitive singular and plural of *paterfamilias*, *deus*, *opus*, *animal*, *jecur*, *vas*, *scelus*, *senex*.

3. Compare *humilis*, *superus*, *munificus*, *nequam*, *graviter*.

4. Give in full the imperfect subjunctive of *fero* and *nolo*; and the present imperative of *edo* (eat), and *eo*.

5. What constructions do the following verbs usually take:— *obliviscor*, *interest*, *rogo*, *pudet?*

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

LATIN AUTHORS.

ARTS AND MEDICINE.

Examiner :—Geo. H. Robinson, M.A.

Time—Two Hours.

Note.—*Candidates for Scholarships will take the whole paper. Candidates in Medicine will omit Section* III. *All other candidates (whether for Pass or Honors, Second Class or First Class Certificates) will take the three groups, with an option between the 4th and 5th question of each group.*

I.

Translate:

Nunc, ut a me, Patres conscripti, quandam prope justam patriæ querimoniam detester ac deprecer, percipite, quæso, diligenter, quæ dicam, et ea penitus animis vestris mentibusque mandate. Etenim, si mecum patria, quæ mihi vita mea multo est carior, si cuncta Italia, si omnis res publica loquatur: "M. Tulli, quid agis? Tune eum, quem esse hostem comperisti, quem ducem belli futurum vides, quem exspectari imperatorem in castris hostium sentis, auctorem sceleris, principem conjurationis, evocatorem servorum et civium perditorum, exire patieris, ut abs te non emissus ex urbe, sed immissus in urbem esse videatur? Nonne hunc in vincula duci, non ad mortem rapi, non summo supplicio mactari imperabis?

1. Give the principal parts of: *quæso, dicam, agis, exire, rapi.*

2. Parse, explaining syntax of: *vita, Tulli, multo, etenim, si.*

3. *A me, in castris, in vincula, ad mortem, supplicio.* Why not respectively *ab me, in castra, in vinculis, morti, cum supplicio?*

4. Distinguish *detestor, deprecor; cunctus, omnis, universus; hostis, inimicus; dux, imperator; urbs, oppidum.*

5. Write brief notes on *patres conscripti, hostium, mactari.*

(over.)

II.

Translate:

Prima luce, cum summus mons a Tito Labieno teneretur, ipse ab hostium castris non longius mille et quingentis passibus abesset, neque, ut postea ex captivis comperit, aut ipsius adventus, aut Labieni, cognitus esset; Considius, equo admisso, ad eum accurit: dicit, montem, quem a Labieno occupari voluerit, ab hostibus teneri; id se a Gallicis armis atque insignibus cognovisse. Cæsar suas copias in proximum collem subducit, aciem instruit. Labienus, ut erat ei præceptum a Cæsare ne prœlium committeret, nisi ipsius copiæ prope hostium castra visæ essent, ut undique uno tempore in hostes impetus fieret, monte occupato nostros expectabat prœlioque abstinebat. Multo denique die per exploratores Cæsar cognovit, et montem a suis teneri, et Helvetios castra movisse, et Considium, timore perterritum, quod non vidisset, proviso sibi renunciasse. Eo die, quo consuerat intervallo, hostes sequitur, et millia passuum tria, ab eorum castris castra ponit.

1. Mark the penult of: *captivis*, *comperit*, *undique*, *timore*, *ponit*.

2. Write brief syntactical notes on: *prima luce*, *passibus*, *equo admisso*, *multo die*, *millia passuum*.

3. Derive *occupari*, *exploratos*, *ut*, *passuum*, *castris*.

4. Briefly describe a Roman camp.

5. Explain the subjunctives in the extract.

III.

Translate:

Jamque dies epulata novem gens omnis, et aris
Factus honos: placidi straverunt aequora venti,
Creber et adspirans rursus vocat Auster in altum.
Exoritur procurva ingens per littora fletus:
Complexi inter se noctemque diemque morantur.
Ipsae jam matres, ipsi, quibus aspera quondam
Visa maris facies, et non tolerabile nomen,
Ire volunt, omnemque fugæ perferre laborem:
Quos bonus Aeneas dictis solatur amicis,
Et consanguineo lacrimans commendat Acestae.
Tris Eryci vitulos, et Tempestatibus agnam,
Caedere deinde jubet, solvique ex ordine funem.

Ipse, caput tonsae foliis evinctus olivae,
Stans procul in prora, pateram tenet, extaque salsos
Porricit in fluctus, ac vina liquentia fundit.
Prosequitur surgens a puppi ventus euntis:
Certatim socii feriunt mare, et aequora verrunt.

1. Write brief explanatory notes on: *aris, consanguineo, Eryci, exta, vina liquentia.*

2. Compare *creber, ingens, asper, bonus, altus.*

3. Principal parts of: *straverunt, exoritur, caedere, jubet, evinctus.*

4. Give the principal events of Book V.

5. Scan vv. 5, 6, 7, marking all quantities and cæsuras.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

FRENCH GRAMMAR AND COMPOSITION.

ARTS AND MEDICINE.

Examiner: W. H. Fraser, B.A.

Time—Two Hours.

Note.—*Candidates for University Scholarships will take only those questions marked with an asterisk. All other candidates (whether for Pass or Honors, Second Class or First Class Certificates) must take Section* I., *and any eight questions of Section* II.

I.

* Translate into French:

When I was a boy at school, I was often very idle. Even in the class I used to play with boys as idle (*paresseux*) as myself. We used to try and hide this from our master, but one day he caught us cleverly.

"Boys," said he, "you must not be idle. You must keep your eyes upon your lessons. You do not know what you lose by idleness (*paresse*, fem.). Study while you are young; you will not be able to study when you are old. If any one sees another boy, who is not studying, let him tell me (tell me = say it to me).

"Now," said I to myself, "there is Fred Smith. I do not like him. If I see that he is not studying, I shall tell (=I shall say it)."

Soon after, I saw Fred Smith looking out of the window, and I told the master what I had seen. "Indeed!" said he, "how do you know he was idle?" "Please, sir," said I, "I saw him." "O you saw him? and where were your eyes when you saw him? Were they on your book?"

I saw the other boys laugh, and I was ashamed, for the master smiled and said it was a good lesson for me.

(over.)

II.

1. The plural of nouns is formed by adding *s* to the singular. State, with examples, the principal exceptions to this rule.

2. Translate into French:
   (*a*) Bring me some bread and some good tea.
   (*b*) There is no tea in the house, but there is good coffee.
   (*c*) Well, if there is good coffee, let me have some of it with milk.
   (*d*) Are there any letters for me? No, sir, there are no letters for you.
   (*e*) Have you heard anything new to-day?

*3. Write the following numerals in French: eighteen, twenty-one, seventy-one, two hundred, two thousand, first, fifth, ninth, twenty-first, one thousandth.

*4. Translate into French:
   (*a*) There are two hats; which is mine?
   (*b*) Here is my hat, here is yours and there is John's.
   (*c*) Here are two pens; this is mine, and that is thine.
   (*d*) Is this one not George's?
   (*e*) No, his is larger, and ours are smaller.

5. Translate the following into French in two ways, (*a*) by using conjunctive personal pronouns and (*b*) by using disjunctive personal pronouns: to thee, him, to them (masc.), to them (fem.), to her.

*6. Translate into French:
   (*a*) In summer we rise before half-past six.
   (*b*) On the first of January we shall be in Paris.
   (*c*) Let us take a walk in the garden.
   (*d*) When did Louis the Sixteenth die?
   (*e*) Our friends have gone away and will not come back again.

*7. Write, in French, five sentences, each one to serve as an example of the correct use of one of the following forms:—*quel*, *quelles*, *laquelle*, *duquel*, *desquelles*.

*8. Translate into French:
   (*a*) She was born on the 31st of December.
   (*b*) This old man has lived almost a hundred years.
   (*c*) It will be fine to-morrow, and we shall go.
   (*d*) Show me the letters you have written.
   (*e*) Can you tell me what I am to do?

9. Write out in full the pres. indic. of *punir*, the impf. indic. of *punir*, the past definite (preterit definite) of *vendre*, the fut. of *parler*, and the impf. subjunctive of *recevoir*.

10. Translate into French:

(*a*) I have some apples here; take some of them.
(*b*) I have taken nothing; I have said nothing; I have done nothing.
(*c*) No one has seen him, but he has seen everybody.
(*d*) He likes to speak of what he has seen.
(*e*) Do you know who was here yesterday?

*11. Translate the following, and explain in each case why the past participle agrees or does not agree: Elles se sont montrées généreuses. Je les ai vus frapper. Les lettres que j'ai commencées. La grande chaleur qu'il a fait. Elles se sont acheté une maison.

12. Translate into French:

(*a*) Has he come from the city? Yes, he has come from it.
(*b*) What a fine book! Give it to me my dear uncle.
(*c*) Shall I give them to him or shall I not give them to him?
(*d*) I shall buy those horses, for I have need of them.
(*e*) Those two ladies do not like each other.

*13. Write in French, five sentences, each one to serve as an illustration of the use of the subjunctive mood.

*14. Translate into French:

(*a*) You have stepped upon my foot, and you have hurt me.
(*b*) My cousin is not learning drawing, because he cannot find a drawing-master.
(*c*) When I was in the country I used to take a walk every day.
(*d*) What is the matter with you? I have a sore hand.
(*e*) If you were to read less, your eyes would not be so weak.

*15. Give in tabular form the pres. part., the past part., the 1 sing. pres. indic., the 1 sing. past def. (preterit def.), and the 1 sing. pres. subj. of *courir*, *savoir*, *valoir*, *connaître*, *vivre*.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

FRENCH AUTHOR.

ARTS AND MEDICINE.

Examiner: W. H. Fraser, B.A.

Time—One Hour and a Half.

Note.—*Candidates for University Scholarships will take only those questions marked with an asterisk. All other candidates (whether for Pass or Honors, Second Class or First Class Certificates) must take either section* I. *or section* II.

I.

* Translate:

Colomb, en le voyant entrer dans son cachot, ne douta pas que sa dernière heure ne fût arrivée. Il s'y était préparé par l'innocence et par la prière. La nature pourtant se troublait en lui.

"Où me conduisez-vous? dit-il en interrogeant du regard et de l'accent l'officier.

—Aux vaisseaux où vous allez être embarqué, monseigneur, répondit Villejo.

—M'embarquer? reprit Colomb incrédule à ce message qui lui rendait la vie; ne me trompez-vous pas, Villejo?

—Non, monseigneur, répliqua l'officier; je vous jure, par Dieu, que rien n'est plus vrai!"

Il soutint les pas de l'amiral et le fit monter sur le vaisseau, écrasé du fardeau de ses fers et poursuivi par les insultes d'une lâche populace.

Mais à peine les vaisseaux furent-ils sous voile que Villejo et Andréas Martin, commandants du navire devenu le cachot flottant de leur chef, s'approchèrent avec respect de lui ainsi que tout l'équipage et voulurent lui enlever ses fers. Colomb, pour qui ces fers étaient à la fois un signe d'obéissance à Isabelle et un signe de l'iniquité des hommes, dont il souffrait

(over.)

dans son corps, mais dont il était glorieux dans son âme, leur rendit grâce, mais refusa obstinément d'être délivré de ces anneaux.

"Non, répondit-il, mes souverains m'ont écrit de me soumettre à Bobadilla. C'est en leur nom qu'ils m'ont chargé de fers. Je les porterai jusqu'à ce qu'ils m'en déchargent eux-mêmes, et je les conserverai après, ajouta-t-il avec une satisfaction amère de ses services et de son innocence, comme un monument de la récompense accordée par les hommes à mes travaux."

* 1. *Il s'y était préparé* (l. 2). Turn the sentence into the plural with a feminine subject.

* 2. *que rien n'est plus vrai* (l. 12). Translate: Y a-t-il rien de plus vrai que cela?

* 3. Give the plural of *lui* (l. 4), *monseigneur* (l. 7); the fem. plur. of *glorieux* (l. 22); the fem. sing. of *eux-mêmes* (l. 27); and the masc. sing. of *amère* (l. 29).

* 4. Name the tenses to which *fût arrivée* (l. 2), *il s'était préparé* (l. 2), respectively belong. Write out in full the tenses named.

* 5. Give the principal parts (pres. infin., pres. part., past part., 1 sing. pres. indic., 1 sing. past definite) of *fût*, *conduisez*, *allez*, *reprit*, *écrit*.

6. State briefly what you know about Diego de Deza, Barthélemy Colomb, Miguel Diaz.

II.

Translate:

Un canot de sauvages était la seule embarcation qu'il pût mettre à flot. Quel homme assez dévoué pour ses frères jouerait sa vie contre un élément si vaste et si terrible, sur un tronc d'arbre creusé, et sans autre gréement qu'une rame? Diego Mendez, jeune officier de l'escadre de Colomb, qui avait déjà montré dans d'autres extrémités cet oubli de soi-même qui fait les héros et les miracles, s'offrit une nuit à la pensée de l'amiral. Il le fit appeler en secret près de son lit où la goutte le retenait, et il lui dit:

"Mon fils, de tous ceux qui sont ici, vous et moi nous comprenons seuls les dangers dans lesquels nous n'avons en perspective que la mort. Un seul moyen nous reste à tenter.

Il faut qu'un seul s'expose à périr pour tous ou nous sauve tous. Voulez-vous être celui-là ?"

Mendez répondit :

" Monseigneur, je me suis plusieurs fois dévoué pour mes frères ; mais il y en a qui murmurent et qui disent que votre faveur me choisit toujours quand il y a une action d'éclat à tenter. Proposez donc demain à tout l'équipage la mission que vous m'offrez, et, si nul ne l'accepte, je vous obéirai."

L'amiral fit le lendemain ce que Mendez avait demandé. Tout l'équipage interrogé se récria sur l'impossibilité d'une traversée immense sur un morceau de bois, jouet du vent et des lames. Mendez alors s'avança et dit modestement :

" Je n'ai qu'une vie à perdre, mais je suis prêt à l'exposer pour votre service et pour le salut de tous ; je m'abandonne à la protection de Dieu."

Il partit et se perdit dans les brumes et dans les écumes de l'horizon, aux yeux des Espagnols dont il portait la vie avec la sienne.

1. *jeune officier* (l. 5). Why no article ?

2. *dans d'autres extrémités* (l. 6). Explain the use of the preposition *de* in this construction.

3. Give the feminine of *héros, tous ceux, lesquels, celui-là, nul.*

4. Name the tenses to which *pût* (l. 1), and *s'offrit* (l. 7) respectively belong. Write in full the tenses named.

5. Give the principal parts (pres. infin., pres. part., past part., 1 sing. pres. indic., 1 sing. past definite) of *dit, comprenons, fit, interrogé, s'avança.*

6. State briefly what you know about Juan Pérès, Guttierez, Ovando.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

GERMAN GRAMMAR AND COMPOSITION.

ARTS AND MEDICINE.

Examiner:—A. F. Chamberlain, B.A.

Time—Two Hours.

Note.—*Candidates for University Scholarships will take only those questions marked with an asterisk, and will translate the first three sentences under questions* I, II, *and last three under questions* III, IV, *and* VII. *All other candidates (whether for Pass or Honors, Second Class or First Class Certificates) will take questions* I *and* VII, *and any three of the remaining questions of Section* A, *and will translate any three of the sentences attached to each question taken.*

An option is allowed to candidates not writing for Scholarships between (a) and (b) of Section B.

A.

* I. Give rules for the determining the Gender of nouns according to meaning.

Translate:

(*a*) In Canada the autumn is often very beautiful.

(*b*) The copper, the silver, and the gold found in the north and west of Ontario are very valuable.

(*c*) London, the capital (*Hauptstadt*) of England, is situated on the Thames.

(*d*) All Paris is not all France.

(*e*) Among the trees in America are the oak, the fir, and the birch (*Birke*).

* II. Compare the uses of the Infinitive Mood in German and in English.

Translate:

(*a*) He remained standing on the shore.

(*b*) Reading, writing and speaking well are to be learned.

(over.)

(*c*) It is well when one has learned to understand German.
(*d*) He believes himself to be very wise.
(*e*) I have something to tell him.
(*f*) I know him to be a clever (*geschickt*) man.
(*g*) You cannot listen to him without learning much.

* III. How are the Ordinal Numerals formed in German? When are the Ordinals used and when the Cardinals?

Translate:

(*a*) One of my friends told me that he had seen the Emperor Frederick the Third of Germany.
(*b*) In the first hundred days of the war, thousands of men were killed.
(*c*) He wrote me on the seventeenth of April. It is now the ninth of July, 1889 [write numerals in full].
(*d*) What day of the month is it? It is the eighteenth, the anniversary (*Jahrstag*) of the battle of Waterloo.

* IV. Distinguish in use and meaning the relative pronouns, *der*, *welcher*, *wer*, and note any peculiarities in the declension of any of them.

Translate:

(*a*) To me, who have always been your friend, you ought to listen.
(*b*) The table on which the letter lies was made from a tree the trunk (*Stamm*) of which was very large.
(*c*) All is not gold that glitters (*glänzen*).
(*d*) He who fears to lose anything often loses much.
(*e*) Whoever said that did not tell the truth.
(*f*) All that I have is yours.

V. Give the prepositions which govern *both* the Dative and the Accusative, and state when they take the former and when the latter.

Translate:

(*a*) He was born on the sixth of September in the city of Berlin.
(*b*) Take the book that lies on the floor and put it into the box.
(*c*) He remained beside the body more than two hours.
(*d*) As we were crossing the river, he spoke to me about your father.

(*e*) Standing in front of the door, he saw a wolf running about amongst the sheep.

(*f*) That battle between the French and the Germans took place (*stattfinden*) ten years ago.

VI. Note any peculiarities in the gender or declension of *Band*, *See*, *Land*, *Ort*, *Wort*.

Translate:

(*a*) He has gone to the country. Are there many larger cities in the German provinces?

(*b*) The people were very attentive to the words of the speaker.

(*c*) He has visited all the principal places in Ontario.

(*d*) Which is the larger, the lake or the sea? There are many lakes in Canada.

(*e*) How many volumes of that book have you? Have you the ribbon or the ties?

* VII. Translate into German:

(*a*) Come-and-see me to-morrow for I shall then be at home and have time enough to talk with you.

(*b*) If the weather were only fine now, we could go out for a walk and enjoy ourselves very much.

(*c*) It is now a quarter to nine and we must make haste, or we shall be late for school, and the teacher will be angry (*böse sein auf*) with us.

(*d*) Last year we were travelling in Europe, and we met there many people whom we had known in Canada. Among them was Doctor S., the brother of our friend, lawyer (*Advocat*) W.

Note any differences as compared with English in the German rendering of the above.

B.

(*a*) Write answers, containing not fewer than five words each, to not more than six of the following questions:—

(1) Wie gefällt Ihnen Hauff's „Das Kalte Herz"?

(2) Warum lernen Sie Deutsch?

(3) Sind Sie jemals in Toronto gewesen?

(4) Wo iſt Montreal? Was iſt es?
(5) Haben wir große Eiſenbahnen in Canada?
(6) Was für Flüſſe giebt es in Canada?
(7) Welches ziehen Sie vor, den Sommer oder den Winter?
(8) Lieben Sie das grüne Feld und die grünen Bäume?
(9) Warum ſollen wir den Geſetzen des Landes gehorchen?
(10) Haben Sie viel gereiſt?
(11) Würden Sie glücklich ſein, wenn Sie ſehr reich wären?

* (*b*) Write a brief description (of not fewer than 30 words) of a scene in the country, using any of the following words as a basis :—

Baum, tree; *Bach*, brook; *Kuh*, cow; *Schaf*, sheep; *Vogel*, bird; *Schäfer*, shepherd; *Schatten*, shade; *fliegen*, to fly; *liegen*, to lie; *singen*, to sing; *Himmel*, sky; *brüllen*, to low [of cattle]; *blöken*, to bleat; *Boden*, ground; *Lerche*, lark; *Lamm*, lamb; *laufen*, to run; *springen*, to leap; *Luft*, the air.

University of Toronto.

ANNUAL EXAMINATIONS, 1889.

JUNIOR MATRICULATION.

GERMAN AUTHORS.

ARTS AND MEDICINE.

Examiner:—A. F. Chamberlain, B.A.

Time—One Hour and a Half.

Note.—*Candidates for University Scholarships will take only those questions marked with an asterisk, and will take the first eight of the words indicated in question* 1 *of Section* I. *All other candidates (whether for Pass or Honors, Second Class or First Class Certificates) must omit questions* 8 *and* 9 *of Section* I, *and either* (*a*) *or* (*b*) *of Section* II; *they must also omit either question* 4 *or question* 5 *of Section* III.

* Translate:

Aber er mochte sein Gedächtnis anstrengen, wie er wollte, weiter konnte er sich keines Verses mehr entsinnen. Er dachte oft, ob er nicht diesen oder jenen alten Mann fragen sollte, wie das Sprüchlein heisse; aber immer hielt ihn eine gewisse Scheu, seine Gedanken zu verraten, ab, auch schloss er, es müsse die Sage vom Glasmännlein nicht sehr bekannt sein und den Spruch müssten nur Wenige wissen, denn es gab nicht viele reiche Leute im Wald, und—warum hatten denn nicht sein Vater und die andern armen Leute ihr Glück versucht? Er brachte endlich einmal seine Mutter auf das Männlein zu sprechen, und diese erzählte ihm, was er schon wusste, kannte auch nur noch die erste Zeile von dem Spruch und sagte ihm endlich, nur Leuten, die an einem Sonntag zwischen elf und zwei Uhr geboren seien, zeige sich das Geistchen. Er selbst würde wohl dazu passen, wenn er nur das Sprüchlein wüsste, denn er sei Sonntag Mittags zwölf Uhr geboren.

Wilhelm Hauff: *Das Kalte Herz.*

(over.)

*1. Give the principal parts (infin., 1 sg. pret. ind., and past partic.,) of not more than eight of the following: *mochte, wollte, konnte, sollte, dachte, heisse, hielt, schloss, müsse, wissen, gab, brachte, sprechen, kannte, würde.*

*2. Parse *mochte* (l. 1), *Verses* (l. 2), *heisse* (l. 4), *es müsse* (l. 6), *Leute* (l. 8), *zu sprechen* (l. 11), *kannte* (l. 12), *Leuten* (l. 13), *zeige sich* (l. 14).

*3. Give gender (referring to rules) of *Gedächtnis, Verses, Sprüchlein, Wald, Glück, Sage, Uhr, Geistchen.*

*4. Give the plural of *Gedächtnis, Mann, Glasmännlein, Vater, Spruch, Geistchen.*

*5. *Diese* (l. 11) parse. Translate: Cicero and Scipio were both great men; the former was an orator (*Redner*), the latter a general.

*6. Distinguish in signification the verbs represented by *wusste* (l. 12), and *kannte* (l. 12).

*7. *Denn . . . . . geboren.* Explain the construction and parse each word. Translate: He comes-to-see (*besuchen*) us on Sundays. It is one o'clock.

*8. *Er brachte . . . sprechen.* Explain the construction. Substitute another expression.

*9. Explain all departures from the usual order or construction in the above extract.

II.

Translate either:

*(*a*) "Ei, wie dir das Lügen von der Zunge geht!" lachte Peter. "Das mach' du einem Andern weis. Meinst du, ich hab' auf meinen Reisen nicht solche Kuntsstücke zu Dutzenden gesehen? Aus Wachs nachgeahmt sind deine Herzen hier in der Kammer. Du bist ein reicher Kerl, das geb'ich zu, aber zaubern kannst du nicht."

or (*b*) Der Höllander Michel hatte sich, je weiter Peter herabkam, wieder kleiner gemacht, und stand nun in seiner früheren Gestalt vor einem Haus, so gering oder gut, als es reiche Bauern auf dem Schwarzwald haben. Die Stube, in welche Peter geführt wurde, unterschied sich durch nichts von den Stuben anderer Leute, als dadurch, dass sie einsam schien.

III.

*Translate :

In tiefes Staunen ſinket hier
Der Graf, entſetzet ſich:
„Und welche Antwort wurde dir
Am Eiſenhammer? ſprich!"—
„Herr, dunkel war der Rede Sinn,
Zum Ofen wies man lachend hin:
Der iſt beſorgt und aufgehoben,
Der Graf wird ſeine Diener loben."

„Und Robert?" fällt der Graf ihm ein,
Es überläuft ihn kalt,
Sollt' er dir nicht begegnet ſein?
Ich ſandt' ihm doch zum Wald!"
„Herr, nicht im Wald, nicht in der Flur
Fand ich von Robert eine Spur"—
„Nun," ruft der Graf und ſteht vernichtet,
„Gott ſelbſt im Himmel hat gerichtet!"

SCHILLER: *Der Gang nach dem Eisenhammer.*

*1. Explain the constructions *Es . . . . kalt*, *sollte . . . . sein.*

*2. Parse *der Rede Sinn* (l. 5), *Der* (l. 7), *ihm* (l. 9), *dir* (l. 11).

*3. Give gender of *Ofen*, *Sinn*, *Flur*, and the nom. pl. of *Graf*, *Wald*, *Antwort.*

*4. What is the force of *doch* (l. 12)?

*5. What is peculiar about *Antwort*?

University of Toronto.

ANNUAL EXAMINATIONS: 1889.

JUNIOR MATRICULATION.

ARTS AND MEDICINE.

GREEK.

Examiners: { Geo. H. Robinson, M.A.
H. R. Fairclough, M.A.

Note.—Candidates in Medicine will take sections C., D., E. only. Candidates in Arts are allowed an option between sections C. and D.; but Candidates for Scholarships are to take C.

A.

1. Translate:

Καί ῥ' οὓς μὲν σπεύδοντας ἴδοι Δαναῶν ταχυπώλων,
Τοὺς μάλα θαρσύνεσκε παριστάμενος ἐπέεσσιν.
"Ἀργεῖοι, μή πώ τι μεθίετε θούριδος ἀλκῆς·
Οὐ γὰρ ἐπὶ ψευδέσσι πατὴρ Ζεὺς ἔσσετ' ἀρωγός,
Ἀλλ' οἵ περ πρότεροι ὑπὲρ ὅρκια δηλήσαντο,
Τῶν ἦτοι αὐτῶν τέρενα χρόα γῦπες ἔδονται,
Ἡμεῖς αὖτ' ἀλόχους τε φίλας καὶ νήπια τέκνα
Ἄξομεν ἐν νήεσσιν, ἐπὴν πτολίεθρον ἕλωμεν."
Οὕς τινας αὖ μεθιέντας ἴδοι στυγεροῦ πολέμοιο,
Τοὺς μάλα νεικείεσκε χολωτοῖσιν ἐπέεσσιν.

Homer, *Iliad* IV.

2. Parse fully *ἴδοι, μεθίετε, ψευδέσσι, ἕλωμεν, πολέμοιο.*

3. Write out the Attic forms for *ἐπέεσσιν, ἔσσετ', νήεσσιν.* Could *τοὺς* be so used in Attic?

B.

1. Translate:

Ὡς δ' ὅτ' ἐν αἰγιαλῷ πολυηχέϊ κῦμα θαλάσσης
Ὄρνυτ' ἐπασσύτερον Ζεφύρου ὕπο κινήσαντος·
Πόντῳ μέν τε πρῶτα κορύσσεται, αὐτὰρ ἔπειτα
Χέρσῳ ῥηγνύμενον μεγάλα βρέμει, ἀμφὶ δέ τ' ἄκρας

Κυρτὸν ἐὸν κορυφοῦται, ἀποπτύει δ' ἁλὸς ἄχνην·
Ὡς τότ' ἐπασσύτεραι Δαναῶν κίνυντο φάλαγγες
Νωλεμέως πόλεμόνδε· κέλευε δὲ οἷσιν ἕκαστος
Ἡγεμόνων· οἱ δ' ἄλλοι ἀκὴν ἴσαν—οὐδέ κε φαίης
Τόσσον λαὸν ἕπεσθαι ἔχοντ' ἐν στήθεσιν αὐδήν—
Σιγῇ δειδιότες σημάντορας· ἀμφὶ δὲ πᾶσιν
Τεύχεα ποικίλ' ἔλαμπε, τὰ εἱμένοι ἐστιχόωντο.

Ibid.

2. Parse fully κινήσαντος, ἐὸν, οἷσιν, δειδιότες, εἱμένοι.

3. Derive πολυηχέϊ, ἐπασσύτερον, κορυφοῦται.

4. Write a note on the appropriateness of the simile, comparing with it another in this book.

C.

1. Translate:

Ἦν δὲ αὕτη ἡ στρατηγία οὐδεν ἄλλο δυναμένη ἢ ἀποδρᾶναι ἢ ἀποφυγεῖν· ἡ δὲ τύχη ἐστρατήγησε κάλλιον. Ἐπεὶ γὰρ ἡμέρα ἐγένετο, ἐπορεύοντο ἐν δεξιᾷ ἔχοντες τὸν ἥλιον, λογιζόμενοι ἥξειν ἅμα ἡλίῳ δύνοντι εἰς κώμας τῆς Βαβυλωνίας χώρας· καὶ τοῦτο μὲν οὐκ ἐψεύσθησαν. Ἔτι δὲ ἀμφὶ δείλην ἔδοξαν πολεμίους ὁρᾶν ἱππέας· καὶ τῶν τε Ἑλλήνων οἳ μὴ ἔτυχον ἐν ταῖς τάξεσιν ὄντες εἰς τὰς τάξεις ἔθεον, καὶ Ἀριαῖος, ἐτύγχανε γὰρ ἐφ' ἁμάξης πορευόμενος διότι ἐτέτρωτο, καταβὰς ἐθωρακίζετο καὶ οἱ σὺν αὐτῷ. Ἐν ᾧ δὲ ὡπλίζοντο, ἦκον λέγοντες οἱ προπεμφθέντες σκοποί, ὅτι οὐχ ἱππεῖς εἰσιν, ἀλλ' ὑποζύγια νέμοιντο.

XENOPHON, *Anabasis* II.

2. Parse fully ἀποδρᾶναι, ἀποφυγεῖν, τοῦτο, ἐτέτρωτο, καταβάς.

3. Decline in full αὕτη, κώμας, ἱππέας.

4. Explain the use of οὐδὲν ἄλλο, δυναμένη, μὴ, ὄντες; and the change of mood in εἰσι...νέμοιτο.

D.

1. Translate:

Ἐγὼ γὰρ Κῦρον ἐπεθύμησά μοι φίλον γένεσθαι, νομίζων τῶν τότε ἱκανώτατον εἶναι εὖ ποιεῖν ὃν βούλοιτο· σὲ δὲ νῦν ὁρῶ τήν τε Κύρου δύναμιν καὶ χώραν ἔχοντα καὶ τὴν σεαυτοῦ ἀρχὴν σώζοντα, τὴν δὲ βασιλέως δύναμιν, ᾗ Κῦρος πολεμίᾳ ἐχρῆτο, σοὶ ταύτην ξύμμαχον οὖσαν. Τούτων δὲ τοιούτων ὄντων, τίς οὕτω μαίνεται, ὅστις οὐ βούλεταί σοι φίλος

εἶναι; Ἀλλὰ μὴν,—ἐρῶ γὰρ καὶ ταῦτα, ἐξ ὧν ἔχω ἐλπίδας καὶ σὲ βουλήσεσθαι φίλον ἡμῖν εἶναι· οἶδα μὲν γὰρ ὑμῖν Μυσοὺς λυπηροὺς ὄντας, οὓς νομίζω ἂν σὺν τῇ παρούσῃ δυνάμει ταπεινοὺς ὑμῖν παρασχεῖν· οἶδα δὲ καὶ Πισίδας· ἀκούω δὲ καὶ ἄλλα ἔθνη πολλὰ τοιαῦτα εἶναι, ἃ οἶμαι ἂν παῦσαι ἐνοχλοῦντα ἀεὶ τῇ ὑμετέρᾳ εὐδαιμονίᾳ.

Ibid.

2. Parse fully γενέσθαι, ὃν, ἐχρῆτο, παρασχεῖν, παῦσαι.

3. Decline in full δύναμιν, ὅστις, ἔθνη.

4. Explain the use of τῶν τότε, γὰρ (ἐρῶ γὰρ), ὄντας, ἂν (νομίζω ἂν), and the mood in βούλοιτο.

E.

1. Translate :

Καὶ γὰρ δὴ ἕως μὲν πόλεμος ἦν τοῖς Λακεδαιμονίοις πρὸς τοὺς Ἀθηναίους, παρέμενεν· ἐπεὶ δὲ εἰρήνη ἐγένετο, πείσας τὴν αὑτοῦ πόλιν, ὡς οἱ Θρᾷκες ἀδικοῦσι τοὺς Ἕλληνας, καὶ διαπραξάμενος, ὡς ἐδύνατο, παρὰ τῶν ἐφόρων ἐξέπλει ὡς πολεμήσων τοῖς ὑπὲρ Χερρονήσου καὶ Περίνθου Θρᾳξίν. Ἐπεὶ δὲ μεταγνόντες πως οἱ ἔφοροι, ἤδη ἔξω ὄντος αὐτοῦ, ἀποστρέφειν αὐτὸν ἐπειρῶντο ἐξ Ἰσθμοῦ, ἐνταῦθα οὐκέτι πείθεται, ἀλλ' ᾤχετο πλέων εἰς Ἑλλήσποντον. Ἐκ τούτου καὶ ἐθανατώθη ὑπὸ τῶν ἐν τῇ Σπάρτῃ τελῶν ὡς ἀπειθῶν. Ἤδη δὲ φυγὰς ὢν ἔρχεται πρὸς Κῦρον, καὶ ὁποίοις μὲν λόγοις ἔπεισε Κῦρον ἄλλῃ γέγραπται, δίδωσι δὲ αὐτῷ Κῦρος μυρίους δαρεικούς. Ὁ δὲ λαβὼν οὐκ ἐπὶ ῥᾳθυμίαν ἐτράπετο, ἀλλ' ἀπὸ τούτων τῶν χρημάτων συλλέξας στράτευμα ἐπολέμει τοῖς Θρᾳξὶ, καὶ μάχῃ τε ἐνίκησε καὶ ἀπὸ τούτου δὴ ἔφερε καὶ ἦγε τούτους καὶ πολεμῶν διεγένετο, μέχρι Κῦρος ἐδεήθη τοῦ στρατεύματος· τότε δὲ ἀπῆλθεν ὡς ξὺν ἐκείνῳ αὖ πολεμήσων.

Ibid.

2. Parse fully μεταγνόντες, ἀπειθῶν ἔπεισε, ἐδεήθη, πολεμῶν.

3. Write short historical notes on :

(*a*) ἕως μὲν πόλεμος...ἐγένετο.

(*b*) οἱ Ἔφοροι.

(*c*) Ἰσθμοῦ.

(*d*) μέχρι Κῦρος ἐδεήθη τοῦ στρατεύματος.

Education Department, Ontario.

MIDSUMMER EXAMINATIONS, 1889.

THIRD CLASS TEACHERS,

ENGLISH GRAMMAR.

Examiners: { J. F. WHITE.
J. E. HODGSON, M.A.

NOTE.—*Candidates will take the* FIRST FOUR *questions, and any* TWO *of the others.*

1. "I have been in the meadows all the *day*
And gathered there the nosegay that you see,
Singing within myself as bird or bee
When *such* do field-work on a morn of May.
But, now I look upon my flowers, decay
Has met them in my hands more *fatally*
Because more warmly clasped,—and sobs are free
To come instead of songs. What do you say,
Sweet *counsellors*, dear friends? that I *should go*
Back straightway to the fields and gather *more?*
Another, sooth, may do it but not I!
My heart is very tired, my strength is low,
My hands are full of blossoms plucked before,
Held *dead* within them till myself shall die." 14

(*a*) Analyse fully the dependent clauses, stating the kind and relation of each.

(*b*) Parse the words in italics.

(*c*) Shew the difference in use between 'myself', l. 3, and 'myself', l. 14; 'that', l. 2, and 'that', l. 9; 'do', l. 4, and 'do', l. 8.

2. (*a*) Shew how the pronoun differs in inflection from the noun.

(*b*) Explain clearly the difference between personal and relative pronouns.

(*c*) What is meant in saying that the relative is sometimes restrictive and sometimes descriptive or connective? Illustrate by the following examples:—

He sent it by your brother John who was going there. Here is the book that you wished. It was I who was present. He obeyed his master which was his duty.

(OVER.)

3. Explain the use and, as clearly as possible, the meaning of the italicized words:—

Go *there* quickly. How many are *there* here? Act well your part, *there* all the honor lies. *It* is the hush of night. We read or talked as *it* chanced. They roughed *it* in the bush. The bulk of the people, *it* is true, were but slaves. Keep such *as* are useful.

4. Correct, giving reasons :—

(*a*) If a piece of iron and of glass be heated to the same degree they communicate to the hand a very different sensation.

(*b*) After various escapes and forty-one days concealment the king landed safely in Normandy, no less than forty persons being privy to his escape.

(*c*) The officer has no power of detention over those even whom he knows will get intoxicated.

(*d*) Although nearly midsummer, the heat was not oppressive, but residents feel it far more than new comers.

(*e*) One if not more of these proprietors hold land in large quantities, buying it before the last land act was passed.

5. (*a*) What are all the different forms that (1) the subject, (2) the predicate of a sentence, may take? Illustrate.

(*b*) Explain 'person' as attributed to (1) the noun, (2) the pronoun, (3) the verb.

6. (*a*) What grammatical relations may a verb express by its form? Give examples in illustration.

(*b*) Define subjunctive mood, stating in what cases it should be used. Apply your principles in the following :—

I shall wait till he $\begin{Bmatrix}\text{comes.}\\\text{come.}\end{Bmatrix}$ If it $\begin{Bmatrix}\text{is}\\\text{be}\end{Bmatrix}$ raining we cannot go. If I $\begin{Bmatrix}\text{was}\\\text{were}\end{Bmatrix}$ he I should do so.

7. (*a*) Shew the different ways in which adverbs are formed from nouns, pronouns, and adjectives.

(*b*) What other duties do adverbs sometimes perform besides "modifying verbs, adjectives, and other adverbs?" Illustrate.

8. (*a*) Classify and explain the use of the italicized expressions: He dreads *going*. I saw him *crossing* the street. On *hearing* the news they left. He went *to buy* a house. A *riding*-whip. I wish *to cross* the street. I saw him *cross* the street.

(*b*) State, with examples, the different classes of words that may be used to connect.

9. (*a*) Divide into root-word, prefix, and suffix, stating the meaning of each part:—invincible, allegiance, conjecture, incendiary, synonymous, promissory, exquisite, bigamist, attainable, executive.

(*b*) Give English words of classic origin corresponding in meaning to—happen, watchful, softened, evildoer, fatherly, fellowship, endless, written after, talkative, watery.

Education Department, Ontario.

MIDSUMMER EXAMINATIONS, 1889.

THIRD CLASS TEACHERS.

ORTHOËPY AND PRINCIPLES OF READING.

Examiners: { J. F. White.
M. J. Kelly, M.D., LL.B.

Note.—*Candidates will take the first three questions and any two of the others.*

1. (*a*) Shew the importance of pause in interpreting feeling.

(*b*) Mark by lines (/ for short, // for long) the pauses in the following:—

"As one who walking in a forest sees
A lovely landscape through the parted trees,
Then sees it not for boughs that intervene,
Or as we see the moon sometimes reveal'd
Through drifting clouds and then again conceal'd,
So I behold the scene."

2. Up rose old Barbara Frietchie then,
Bow'd with her fourscore years and ten;
Bravest of all in Frederick town,
She took up the flag the men haul'd down;
In her attic-window the staff she set,
To show that one heart was loyal yet.
Up the street came the rebel tread,
Stonewall Jackson riding ahead.
Under his slouch'd hat left and right
He glanced: the old flag met his sight.
"Halt!"—the dust-brown ranks stood fast,
"Fire!"—out blazed the rifle-blast.
It shiver'd the window, pane and sash;
It rent the banner with seam and gash.
Quick, as it fell, from its broken staff
Dame Barbara snatch'd the silken scarf;

(over.)

She lean'd far out on the window-sill,
And shook it forth with a royal will.
"Shoot, if you must, this old grey head,
But spare your country's flag!" she said.
A shade of sadness, a blush of shame,
Over the face of the leader came;
The nobler nature within him stirr'd
To life at that woman's deed and word.
"Who touches a hair of yon grey head,
Dies like a dog! March on!" he said.

(*a*) Mark the general pitch, force, and movement (rate) of the extract. What parts require a different rendering, and why?

(*b*) Give, with reasons, six emphatic words in ll. 1-6; without reasons, six in ll. 19-26.

(*c*) Select four words requiring the rising interval (inflection), and four, the falling; giving explanation in each case.

3. Divide into syllables, accentuate, mark the correct sound of the italicized consonants and of the vowels in the accented syllables:—quinine, mira*g*e, sergeant, demesne, deficit, jon*q*uil, peremptory, amateur, complai*s*ance, vagary, sacrilegious, Sik*h*s.

4. (*a*) State what is meant by orotund voice. How is it produced and for what compositions is it suited?

(*b*) For what feelings is impure voice the proper mode of expression?

5. In what does stress differ from force or loudness? Indicate, with reasons, the force and the stress that should be employed in reading each of the following:—

(*a*) "Come one, come all—this rock shall fly
From its firm base as soon as I."

(*b*) "The only principles of public conduct, which are worthy of a gentleman or a man, are to sacrifice estate, health, appearance, and even life itself, at the call of his country."

(*c*) "An old man, broken with the storm of state,
Is come to lay his weary bones among ye."

(*d*) "All hail, thou lovely queen of night!"

6. (*a*) Explain clearly what is meant by emphasis, distinguishing emphasis of sense and emphasis of feeling.

(*b*) What different meanings may the following sentence have, depending upon the position of the emphasis:—

Were you not well paid to fight valiantly against Alexander?

7. By what principles are pitch and movement (rate) connected with the suitable interpretation of thought and feeling? Illustrate by reference to the following:—

(*a*) "She is won! we are gone over bank, bush and scaur;
They'll have fleet steeds that follow!" quoth young
Lochinvar.

(*b*) "But at midnight,—strange, mystic hour!—when the veil between the frail present and the eternal future grows thin,—then came the messenger!"

(*c*) Hail to thee! blithe spirit, bird thou never wert,
That from Heaven, or near it, pourest thy full heart.

(*d*) "Young men, ahoy!" "What is it?" "Beware! beware! the rapids are below you! See how fast you pass that point! Quick! quick! Pull hard!"

Education Department, Ontario.

MIDSUMMER EXAMINATIONS, 1889.

THIRD CLASS TEACHERS.

INDEXING AND PRECIS WRITING.

Examiners: { CORNELIUS DONOVAN, M.A.
J. J. TILLEY.

NOTE.—*Candidates will take the first two questions and either of the other two.*

1. Write in full the correspondence of which the following is the Index:

1	1889 Feby 12	Brown to Jones	Requesting particulars as to house and lot for sale.
2	Feby 15	Jones to Brown	Stating: price $7500; one-third down, balance in annual instalments of $1000 each with interest at 6 per cent.
3	Feby 21	Brown to Jones	Accepting his terms.

2. Write a Précis of the following:

RUSHINGTON, May 23rd, 1889.

To the Mayor and City Council, Rushington:

GENTLEMEN:—I am authorized to inform you that the ratepayers of that part of the city lying south of Plum street held a public meeting on the 21st instant, for the purpose of considering the proposed running of a branch of the X. Y. Z. Railway through that locality. At that meeting it was unanimously agreed to petition your honorable body either to make different arrangements with the aforesaid Railway Company, or else to

(OVER.)

provide compensation for those ratepayers whose property will be injured by the running of the said branch.

Your obedient servant,

J. Steele Penn, Secretary.

City Hall, Rushington, May 31st, 1889.

Sir:—I beg leave to inform you that your petition was laid before the City Council at a recent meeting, when it was decided to obtain the opinion of the city solicitors on the question. In due time this opinion was received and is as follows:

Re X. Y. Z. Railway.

To the Rushington City Council:—

In accordance with your request we have considered the petition of certain ratepayers regarding the proposed local branch of the X. Y. Z. Railway. In our opinion the contract with said Railway Company cannot be altered, nor would it be advisable for you to vote compensation on your own authority, but it is competent for you to submit a by-law to the people with the view of obtaining public opinion on the question of compensation.

Fair, Squair & Co., City Solicitors.

This communication was at once brought before the Council when it was decided to have a by-law prepared in accordance with the opinion of the city solicitors.

Yours truly,

T. N. Gaging, City Clerk.

J. Steele Penn, Esq.

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3. (*a*) What is the object of indexing letters?

(*b*) Distinguish between a tabular index and an ordinary index. Shew how to fyle away letters received.

4. Re-write, using as few words as possible:

The aim of education should be to teach us rather how to think than what to think; rather to improve our minds so as to enable us to think for ourselves than to load the memory with the thoughts of other men.

It will be very illiberal and ungenerous on your part if, through your permission, I am allowed to be suspected and regarded as having all along foreseen the disastrous issue which has been the result of your unfortunate speculation.

Imagination should not be indulged too freely; it requires to be restrained by the exercise of a sound judgment.

Education Department, Ontario.

MIDSUMMER EXAMINATIONS, 1889.

THIRD CLASS TEACHERS.

ENGLISH PROSE LITERATURE AND COMPOSITION.

Examiners: { JOHN SEATH, B.A.
J. E. HODGSON, M.A.

NOTE.—*Candidates will take Sections* II *and* III, *the first three questions in Section* I, *and any* ONE *of the remaining questions in Section* I.

I.

The plague of locusts, one of the most awful visitations to which the countries included in the Roman empire were exposed, extended from the Adriatic to Ethiopia, from Arabia to India, and from the Nile and Red Sea to Greece and the north of Asia Minor. Instances are recorded in history of clouds of the devastating insect crossing the Black Sea to Poland, and the Mediterranean to Lombardy. It is as numerous in its species as it is wide in its range of territory. Brood follows brood, *with a sort of family likeness, yet with distinct attributes. It wakens into existence and activity* as early as the month of March; but instances are not wanting, as in our present history, of its appearance as late as June. *Even one flight comprises myriads upon myriads passing imagination*, to which the drops of rain or the sands of the sea are the only fit comparison; and hence it is almost a proverbial mode of expression in the East, *by way of describing a vast invading army*, to liken it to the locusts. So dense are they, when upon the wing, that it is no exaggeration to say that they hide the sun, from which circumstance indeed their name in Arabic is derived. And so ubiquitous are they when they have alighted on the earth, that they simply cover or clothe its surface.

This last characteristic is stated in the sacred account of the plagues of Egypt, where their faculty of devastation is also mentioned. The corrupting fly and the bruising and prostrating hail preceded them in that series of visitations, but they came to do the work of ruin more thoroughly. For not only the crops and fruits,

(OVER.)

but the foliage of the forest itself, nay, the small twigs and the bark of the trees are the victims of their curious and energetic rapacity. They have been known even to gnaw the door-posts of the houses. *Nor do they execute their task in so slovenly a way, that, as they have succeeded other plagues, so they may have successors themselves.* They take pains to spoil what they leave. Like the Harpies, they smear every thing that they touch with a miserable slime, which has the effect of a virus in corroding, or as some say, in scorching and burning. And then, perhaps, as if all this were little, when they can do nothing else, they die; as if out of sheer malevolence to man, for the poisonous elements of their nature are then let loose and dispersed abroad, and create a pestilence; and they manage to destroy many more by their death than in their life.

1. What is the main subject of each of these paragraphs? What are the subordinate subjects, and what sentences are included under each?

2. Give for the italicized parts equivalent expressions which may be substituted for those in the text, without destroying the literary form.

3. Give the terms that describe the style and exemplify their application from the extract.

4. Shewing in each case which is preferable, discriminate between the meanings of "awful visitations", l. 1, and "dreadful visits"; "devastating", l. 5, and "ravaging"; "range", l. 7, and "extent"; "vast", l. 15, and "large"; "characteristic", l. 21, and "quality"; "foliage", l. 26, and "leaves"; "succeeded" l. 30, and "followed"; and "pestilence", l. 37, and "visitation".

5. State, with reasons, which of the following is preferable: "The plague—Asia Minor", ll. 1-4, or "The plague of locusts extended over many of the countries included in the Roman Empire"; "It is—territory", ll. 7 and 8, or "It is also numerous in its species"; "And so ubiquitous are they", ll. 18-19, or "They are also so ubiquitous"; "they simply cover or clothe", ll. 19-20, or "they clothe"; "even to gnaw", l. 28, or "to gnaw even"; and "Like the Harpies, they smear" ll. 31-32, or "They smear".

6. By means of four well marked instances, shew how the quality of Strength (or Force) has been secured; and, by means of two well marked instances, shew how the quality of Melody has been secured.

II.

1. Point out what you consider the five chief defects in the literary form of *either* (*a*) or (*b*).

2. Rewrite *either* (*a*) or (*b*) in good literary form, using indirect narration in the case of (*b*):

(*a*) King Alfred, who was the most learned of the English, while quite a youth had visited the Southern European countries, and had observed closely their manners, and he was conversant with the learned languages, and with most of the writings of antiquity. His superior knowledge created a certain degree of contempt for the nation he governed in the mind of the king, who had small respect for the information or intelligence of the great national council, the Assembly of Wise Men, and was full of the ideas of absolute power which so frequently recur again and again in the Roman writers. Having an ardent desire for political reforms in the state, he framed infinite plans, which we may perhaps concede were better in themselves than the ancient Anglo-Saxon practices they were destined to replace, but wanting that essential and indispensable requisite, the sanction of a people, who neither understood nor desired them. Some severe features of Alfred's government have vaguely been preserved by tradition; and they used to speak of the excessive rigour he applied to the punishment of evil judges long after his death, which severity was far from agreeable to a people who valued the life of a freeman at that time more highly than regularity in the administration of public affairs, although it had for its object the good of the Anglo-Saxon nation.

(*b*) Mr. Clarke relates the following anecdote: "It was my father's usual custom to hear me repeat to him the lesson I was learning and expected to say the next morning at school when I was a boy. I was learning my Greek grammar at the time I refer to, the part which I had to repeat being the active voice of the verb; and I went up to him just before bed-time as usual: but, although I started well, I could not say it, and was sent to bed in disgrace. Going his rounds, as my father always did with much uniformity, to the children's bed-rooms, to see that all was right, and coming as usual to my room, and hearing my voice, it was soon plain that I was talking in my sleep, in fact, conjugating the verb, to which he listened attentively till I had gone through it all without a mistake. Coming down next morning, he summoned me to say my lesson, but I was ignorant of it as I had been the night before; and though he told me, which he did to encourage me, that he had heard me say it quite perfectly in my sleep, I was still unable to say my lesson."

III.

SUBJECT FOR COMPOSITION.

(Candidates will write on any ONE *subject.)*

(*a*) THE FINAL SCENE AT WATERLOO: The charge of the French Reserves; their reception by the Guards; the result.

(*b*) THE TRIAL BY COMBAT: The preparations; the combat; the victor's treatment.

(*c*) A REAL OR IMAGINARY VISIT TO A FRIEND (described in the form of a letter). The journey; his home and the surrounding grounds; a fishing or boating excursion and a slight accident connected therewith; the return home. Insert any other items of interest you please.

Education Department, Ontario.

MIDSUMMER EXAMINATIONS, 1889.

THIRD CLASS TEACHERS.

ENGLISH POETICAL LITERATURE.

Examiners: { JOHN SEATH, B.A. / J. E. HODGSON, M.A.

NOTE.—*Candidates will take Sections* IV *and* V, *and any* ONE *of Sections* I, II, *and* III.

I.

Portia. The *quality* of mercy is not *strain'd;*
It droppeth as the gentle rain from heaven
Upon the place beneath; it is twice bless'd;
It blesseth him that gives, and him that takes:
'Tis mightiest in the mightiest: it becomes
The throned monarch better than his crown;
His sceptre *shows* the force of temporal power,
The attribute to awe and majesty,
Wherein doth sit the dread and fear of kings;
But mercy is above this sceptred sway;
It is enthroned in the hearts of kings,
It is an attribute to God himself;
And earthly power doth then *show* likest God's
When mercy *seasons* justice. Therefore, Jew,
Though justice be thy plea, consider this,—
That in the course of justice, none of us
Should see salvation: we do pray for mercy;
And that same prayer doth teach us all *to render*
The deeds of mercy. I have spoke this much
To mitigate the justice of thy plea;
Which if thou follow, this strict court of Venice
Must needs give sentence 'gainst the merchant there.
Shylock. My deeds upon my head! I crave the law,
The *penalty and forfeit* of my bond,

1. Shew how this extract is connected in sense with the preceding context.

2. Explain fully the meaning of the italicized expressions, and the different points of the contrast indicated by "But", l. 10.

(OVER.)

3. Outline the appeal which Portia makes "to mitigate the justice" of the Jew's "plea". Explain why she makes this appeal, when, as the result shows, it was unnecessary: justify your answer.

4. Shew, by means of five well marked examples, wherein consists the literary excellence of this passage.

5. (*a*) What feelings actuate Portia and Shylock respectively? Explain how these should be brought out in reading.

(*b*) State, with reasons, which should receive more emphasis: "not" or "strain'd", l. 1; "twice" or "bless'd", l. 3; "sit" or "dread and fear", l. 9; "mercy" or "above", l. 10; "justice" or "plea", l. 15; "law" or "penalty and forfeit", ll. 23-24.

(*c*) How should the climax in ll. 10-12 be shewn in reading?

II.

Sweet day, so cool, so calm, so bright,
The bridal of the earth and sky:
The dew shall weep thy fall to-night;
For thou must die.

Sweet rose, whose hue, angry and brave,
Bids the rash gazer wipe his eye,
Thy root is ever in its grave;
And thou must die.

Sweet Spring, full of sweet days and roses,
A box where sweets compacted lie;
Thy music shows ye have your closes;
And all must die.

Only a *sweet* and virtuous soul,
Like season'd timber, never *gives:*
But, though the whole world turn to coal,
Then *chiefly* lives.

1. State

(*a*) the circumstances under which this poem is represented as having been composed;

(*b*) the subject of each of the stanzas;

(*c*) the connection in sense between the third and the preceding stanzas and between the last and the preceding stanzas; and

(*d*) the subject of the poem.

2. Explain the meaning of the italicized expressions.

3. A writer, commenting on this poem, says: "Even in this poem we find what mars all the poetry of Herbert, ridiculous conceits and unpleasant similes." Discuss this statement, giving reasons for the view you take.

4. Shew, by means of five well marked examples, how Herbert has given Force and Beauty to his language.

5. (*a*) What is the difference in feeling between ll. 1-2 and ll. 3-4, stanza I, and how should this be brought out in reading?

(*b*) State, with reasons, which should receive more emphasis :— "bridal" or "earth and sky", l. 2; "thou" or "must die", l. 4; "thou" or "must die", l. 8; "virtuous" or "soul", l. 13; "season'd" or "timber," l. 14.

III.

I bring fresh showers for the thirsting flowers
From the seas and the streams;
I bear light shade for the leaves *when laid*
In their noon-day dreams.
From my wings are shaken the dews that waken
The sweet buds every one,
When rock'd to rest on their Mother's breast,
As she dances about the sun.
I wield the flail of the lashing hail,
And whiten the green plains under;
And then again I dissolve it in rain,
And *laugh as I pass in thunder.*

I sift the snow on the mountains below,
And their great pines groan aghast;
And all the night *'tis my pillow white,*
While I sleep in the arms of the Blast.
Sublime on the towers of my skyey bowers
Lightning, my pilot, sits;
In a cavern under is fetter'd the Thunder,—
It struggles and howls *at fits.*
Over earth and ocean with gentle motion
This pilot is guiding me,
Lured by the love of the Genii that move
In the depths of the purple sea;
Over the rills and the crags and the hills,
Over the lakes and the plains,
Wherever he dream under mountain or stream
The spirit he loves remains;
And *I all the while bask in heaven's blue smile,*
While he is dissolving in rains.

1. (*a*) By reference to ll. 5-8, explain the poetical value of Personification.

(*b*) State concisely, in the order in the poem, the natural phenomena which Shelley here represents poetically; discussing his representations in ll. 17-28.

(*c*) Explain the meaning of the italicized parts.

2. State, with reasons, which of the following is preferable in the foregoing: "dews", l. 5, or "rains"; "noon-day", l. 4, or "mid-day"; "dances", l. 8, or "whirls"; "wield", l. 9, or "swing"; "dissolve", l. 11, or "melt"; "great pines", l. 14, or "large oaks"; "lured", l. 23, or "led"; "dream", l. 27, or "dreams".

3. Develop the aptness of "rocked to rest" and "Mother's breast", l. 7; "laugh", l. 12; "sift", l. 13; and "skyey bowers", l. 17.

4. By reference to ll. 13-16 and 19-26, shew how the Melody and the Harmony of the poem have been secured.

5. (*a*) Explain the movement (or, rate), tone, and force needed for the proper reading of this poem.

(*b*) What difference should be made between the reading of ll. 19-20, and ll. 21-24?

(*c*) Assigning reasons, mark, with vertical lines, the pauses to be made in reading ll. 12, 27, and 28.

IV.

Reproduce the substance of *either* of the following selections in a prose composition, displaying suitable taste and feeling:

(1) "The Lord of Burleigh"; (2) "The Revenge."

V.

Quote any *one* of the following:

(1) "To Daffodils"; (2) "As Ships becalmed at Eve";
(3) the last three stanzas of "The Cloud Confines".

Education Department, Ontario.

MIDSUMMER EXAMINATIONS, 1889.

THIRD CLASS TEACHERS.

HISTORY AND GEOGRAPHY.

Examiners: { M. J. Kelly, M.D., LL.B.
J. E. Hodgson, M.A.

Note.—*Only eight questions are to be answered, viz., 3 from group* A, *2 from group* B, *and 3 from group* C.

A.

1. What, and where to be found, are the evidences of the occupation of England by (*a*) the Celts, (*b*) the Romans, (*c*) the Danes, (*d*) the Norman French?

2. What English kings were connected with the Crusades? Show how these wars affected the English people.

3. Outline, with brief notes, as to their causes and effects, the constitutional changes that occurred during any two of the following reigns:—(*a*) that of John, (*b*) that of Henry III, (*c*) that of Charles I, (*d*) that of Charles II, (*e*) that of William III.

4. Sketch the leading features of the reign of George III.

5. Give an account of the Chartist Agitation. Enumerate the demands made by the leaders of the movement, and show how far these demands have been since satisfied.

B.

6. Detail the causes of the Canadian Rebellion of 1837, and the results that flowed from it.

7. State fully the circumstances that led up to Canadian Confederation.

(over.)

8. Outline briefly the Constitution of Canada as defined by the British North America Act of 1867, noting the functions generally of the Dominion and Local Legislatures. State which has jurisdiction in matters affecting:—Indian Affairs, Education, Fisheries, Rivers and Streams, Postal Service, Militia, Municipal Institutions, Bankruptcy, Penitentiaries, Gaols, Reformatories.

C.

9. Locate the principal commercial centres of the British Islands, indicating their most important trade relations and mentioning for what each centre is especially noted.

10. Draw an outline map of the United States, showing the water system and describing its effects on commerce, climate and productions.

11. State the causes and directions of the trade winds, the monsoons, and the land and sea breezes; and show how trade, climate and productions are affected by them.

12. Locate as definitely as possible the following places, mentioning for what each is remarkable: Heidelberg, Aden, Duluth, Calcutta, Carthagena, Victoria, Sault Ste. Marie, Halifax.

13. Give an account of the natural resources of British Columbia and the Basin of the Mackenzie River, with the probable effects of their development on the future of the Canadian North West.

Education Department, Ontario.

MIDSUMMER EXAMINATIONS, 1889.

THIRD CLASS TEACHERS.

ARITHMETIC.

Examiners: { J. F. WHITE. / W. H. BALLARD, M.A.

NOTE.—*Candidates will take the first four questions and any five of the others.*

1. (*a*) Simplify $\dfrac{\cdot 5 \times \cdot 006}{\frac{9}{15} \text{ of } \frac{4}{5} \times (\frac{1}{4})^2} + \dfrac{\frac{1}{5} \text{ of } \frac{15}{16} \times (\frac{2}{3})^2}{1 \cdot 6 \times \cdot 625}$ (Answer in fractional form.)

(*b*) Find the average, correct to 4 places of decimals, of

$12\frac{14}{25}$, 21, $7\frac{3}{4}$, $\cdot 034$, $3 \cdot 125$, 0, $24 \cdot 58$ and $12\frac{9}{20}$

NOTE.—*No marks will be allowed for either* (*a*) *or* (*b*) *except the answer be perfectly correct.*

2. In what time will \$30441 gain \$2210·10 if, at the same rate, the gain on \$24944·10 for 1 year and 15 days is \$2596·92? What is the rate per cent. per annum (365 days to a year)?

3. A house that cost \$15500 rents for \$155 a month. It is insured for \$10850 @ $\frac{4}{5}$ % yearly; the taxes are 15 mills on an assessment of \$12450, and \$346.45 is spent each year on repairs. What rate of interest does the investment pay?

4. A rectangular field, whose width is $\frac{3}{4}$ of its length, contains 15 acres, 123 per. In going from one corner to the opposite how much shorter is it to take the diagonal than to go around the two sides?

5. A note of \$2450, dated Halifax, June 1st, 1886, for 4 mos., bearing interest @ 6 %, is discounted at a bank on Aug. 15th @ 8 %. Find the proceeds.

(OVER.)

6. A farm cost $3\frac{3}{4}$ times as much as a house; by selling the house @ 10 % *loss* and the farm @ $7\frac{1}{7}$ % *gain*, \$3993.30 is received. Find cost of each.

7. Bought 64 yds. of cloth, @ \$5.70 a yard. If it shrank 5 % in length, find the selling price per yard to gain 20 %.

8. A and B are partners, A's capital being $\frac{3}{5}$ of B's. At the end of 5 months A withdraws $\frac{1}{4}$ of his capital, and at the end of 9 months B withdraws $\frac{1}{3}$ of his. How should they divide a gain of \$4222.33 at the end of the year?

9. A man sold his 5 per cents @ 78 and invested the proceeds in 6 per cents @ 104. His change in income being \$385, find how much 5 per cent stock he had.

10. A dealer shipped 400 bushels wheat @ \$1.40, 800 bushels @ \$1.62$\frac{1}{2}$, and 300 bushels @ \$1.20, to his agent, who sold the first at 20 per cent. gain, the second at 15 per cent. gain, and the third at $4\frac{1}{6}$ per cent. loss. The agent's commission was 3 per cent., and other charges were \$83.44; find the dealer's gain per cent.

11. What is the cost of boards, at \$1 for 50 sq. ft., to make a closed box 7 ft. 10 in. long, 3 ft. 8 in. wide, 2 ft. 6 in. high (outside dimensions), the boards being 1 inch thick?

12. Reckoning a pint to be 30 cub. in.: if 462 gals. are taken out of a cylindrical cistern 7 ft. in diameter, how many inches will the surface of the water be lowered? ($\pi = 3\frac{1}{7}$.)

Education Department, Ontario.

MIDSUMMER EXAMINATIONS, 1889.

THIRD CLASS TEACHERS.

ALGEBRA.

Examiners: { W. H. BALLARD, M.A.
J. E. HODGSON, M.A.

NOTE.—*Only eight questions are to be attempted.*

1. (*a*) Define the terms quantity, unit, number, negative quantity. How is quantity measured?

(*b*) Distinguish between the arithmetical sum (or difference) and the algebraic sum (or difference) of two quantities.

2. Factor

$(c-x)(x^2+ab)+(a+x)(x^2-bc)+(b-x)(x^2+ca)$.

What values of x will make this expression $= 0$?

If a, b, c, x, are all positive quantities, under what conditions will the expression be negative?

3. If two expressions have a common factor, prove that the sum or difference of any multiples of these expressions will have that common factor.

Find the highest factor common to the expressions

$$x^2(3-2y)+x(3x^2-5y^2)-(2x+5y)y\ ,$$
$$x^2(3+2y)+x(3x^2-5y^2)+(2x-5y)y\ .$$

4. Add together the following:

$$\frac{1}{a-x}\cdot\frac{1}{(a-b)(a-c)}\ ,\ \frac{1}{b-x}\cdot\frac{1}{(b-c)(b-a)}\ ,$$
$$\frac{1}{c-x}\cdot\frac{1}{(c-a)(c-b)}\ .$$

(OVER.)

5. Find all the factors of

$$x^4 + 4y^4 ,$$

$$2a^2 - b^2 + ab^2 - a^2b - 2a - ab + 2b ,$$

$$a^3b^3 + b^3c^3 + c^3a^3 - 3a^2b^2c^2 .$$

6. Reduce to its simplest form

$$s^2 - (s-a)(s-b) - (s-b)(s-c) - (s-c)(s-a) ,$$

where $2s = a + b + c$.

7. Solve the equations

(1) $$\frac{x-4}{x-5} - \frac{x-5}{x-6} = \frac{x-7}{x-8} - \frac{x-8}{x-9} ;$$

(2) $$\frac{1}{15}(9x - 7) - \frac{1}{3}(x - 2\tfrac{7}{9}) - \frac{7x}{19} + \frac{22}{171} = 0 .$$

8. For what value of x will the sum of the following fractions be 3 :

$$\frac{(x-a)^2}{(x-b)(x-c)} , \quad \frac{(x-b)^2}{(x-c)(x-a)} , \quad \frac{(x-c)^2}{(x-a)(x-b)} ?$$

9. A person who has \$30,000 invested receives from part of it an income of $4\frac{3}{4}$ per cent. per annum, and from the remainder an income of $5\frac{1}{4}$ per cent. per annum. His total income is \$1490; how much has he invested at each rate per cent.?

10. A piece of work is done in 4 days by three men, A, B, C, working together. A would require 5 days longer than C to do the whole work; and the work done by A and B together in a day exceeds that done by C in a day, by one-twentieth of the whole work. What time would each require to do the work by himself?

11. A whole number, greater than 800 and less than 900, is altered by removing the left hand digit and putting it in the units place. The new number is three-fourths of the original one. Find the number.

12. The difference between the cubes of two consecutive odd numbers is 218, state the equation from which these numbers may be found and carry on the solution as far as you can.

Education Department, Ontario

MIDSUMMER EXAMINATIONS, 1889.

THIRD CLASS TEACHERS.

BOOK-KEEPING.

Examiners: { J. J. TILLEY. / C. DONOVAN, M.A.

NOTE.—*Only six questions are to be taken, viz., the two questions in group* A, *any two from group* B, *and any two from group* C.

A.

1. Give Day Book Entries requiring the following Journal Entries:

(*a*) J. Rundle,	*Dr.* -	$180		
Interest and Discount,	" -	10		
To Bills Receivable,			- -	$190
(*b*) Shipment Co., *Dr.*	- -	$400		
To Mdse.	- -		- -	$260
" Cash,	- -		- -	140
(*c*) Bills Payable	*Dr.*- -	$240		
Interest and Discount	" -	12		
To Bills Payable,			- -	$252

2. (*a*) A shipped to B, for sale on joint account, 1000 bbls. of flour at $2.50 per bbl., paying shipping expenses $175 in cash.

(*b*) B on receipt of the flour paid $15 drayage by check on the Dominion Bank.

(*c*) B sold the flour to King at $3.65 per bbl., receiving in payment King's Sight Draft on Jones for $1500; McHugh's acceptance due in 10 days for $1000; an order on C for $500; balance to remain on account.

(*d*) B charged $2\frac{1}{2}$ cents per bbl. storage, $\frac{1}{4}$ per cent. on invoice for insurance, and 2 per cent. commission for selling. He then rendered A an Account Sales, remitting draft on Dominion Bank due at sight.

(OVER.)

(*e*) A received the Account Sales and Draft.

(1) Give the Partners' Journal Entries.

(2) Make out the Account Sales.

B.

3. (*a*) Distinguish between a Trial Balance and a Balance Sheet.

(*b*) If the Trial Balance is satisfactory, is it safe to assume that the books are correct? Give reasons for your answer.

(*c*) Give rules for detecting errors in the Trial Balance.

4. Name and briefly describe the books that are admitted as evidence in Courts of Justice, and state the facts that must be proved to entitle them to be received as evidence.

5. James Wilson's account on our Ledger stands as follows:

DEBIT SIDE.

March 1st, 1889.	Mdse, at 3 mos.	-	$375
May 10, "	" at 4 mos.	-	$600

CREDIT SIDE.

May 20th, 1889.	Cash	-	$200
June 10th, "	"	-	$120

Show by equation when the balance of this account will be due. Give work in full.

C.

6. A bought goods from B amounting to $540, and gave in payment a check on the Dominion Bank for $100; an order on G. Brown for $80; H. Smith's note in A's favor, dated May 24th, 1889, having 3 months to run, without interest, for $90; and his own note at 30 days, with interest at 8 per cent. per annum, payable at the Dominion Bank, for the balance.

(*a*) Give both A's and B's Journal Entry.

(*b*) Write the two notes, making the first note negotiable by endorsement, and the second (drawn June 1st, 1889) negotiable without endorsement.

7. A shipped to B, on B's order and for B's account, goods invoiced at $800. A took one-half of the goods from his store, and the other half from goods which he had received from C to be sold on C's account and risk. On sending the goods away, A paid freight, &c., $25 by check; and B, on receipt of the goods, paid cartage $16 cash.

(*a*) Give both A's and B's Journal Entry.

(*b*) Write the necessary correspondence between A and B in connection with the above transaction.

8. A merchant wishing to close his books finds that his Trial Balance shows the following Debits and Credits in the accounts which do not balance :—

	Dr.		*Cr.*	
Stock	$ 480	00	2645	00
Bank	2515	00	1595	00
Mdse.	9480	00	9470	00
Bills Receivable	1540	00	480	00
Bills Payable	820	00	1240	00
James Jones	130	00	25	00
John Payne	20	00	85	00
Cash	501	00	27	00
Expense	340	00	87	00
Shipment to A No. 1	384	00	530	00
Commission	15	20	36	20
Interest and Discount	25	00	.....	.....
Storage	.....	.....	30	00
	16250	20	16250	20

His inventory shows mdse. unsold $890 ; coal oil, &c., bought for use of store but unsold $28. Interest accrued on notes against him unpaid $35.

(*a*) Make out a statement of Resources and Liabilities.

(*b*) Make out a statement of Losses and Gains.

Education Department, Ontario.

MIDSUMMER EXAMINATIONS, 1889.

THIRD CLASS TEACHERS.

DRAWING.

NOTE.—*Only seven questions are to be attempted, two of which must be selected from group* A, *two from* B, *two from* C, *and the one in* D.

A.

1. Draw a pair of plain Scissors, opened to full extent; length 6 inches.

2. Draw a Square, length of side 6 inches; draw diameters; place in first small square a Maltese Cross; in second, a Unit of a design in reversed curves; in third, a Natural Maple Leaf; in fourth, same conventionalized.

3. Draw a simple object, derivable from the Ellipse or the Oval.

4. Shew, by the drawing of an ordinary Kitchen Table, the application of elevations.

B.

5. Draw a Rhombus, whose sides shall be 2 inches in length, and whose acute angles $37\frac{1}{2}°$.

Inscribe a Circle in the Rhombus.

6. Draw a Triangle, whose sides are 2, 3, and 4 inches respectively; produce any two sides and describe a Circle to touch the third side and the produced parts of the other two.

7. Draw three Circles, diameters 2 inches each; each circle to be in contact with two others; about these circles draw the circumscribing circle.

(OVER.)

8. The diagonal of a Square is $2\frac{1}{2}$ inches; construct it; divide it into three equal parts by lines drawn from an angular point.

C.

[NOTE.—*In following problems consider height of spectator's eye, 6 ft. Distance from the Picture Plane 4 ft. Scale $\frac{1}{4}$ inch equals 1 ft.*]

9. Draw a Circle, diameter 4 ft., plane of circle perpendicular to both P.P. and G.P., and touching both, center of circle to be 4′ to the left of spectator.

10. Draw a Regular Hexagon, whose sides are each 2 ft.; Hexagon to be parallel to G.P. and 8 ft. above it; two sides of the hexagon are to be perpendicular to the P.P.; center of hexagon to be 4 ft. to the right and 4′ within the P.P.

11. Draw the Frustum of a Square Pyramid; edge of ends 3 and 4 inches respectively; height 5 ft.; the pyramid rests on the G.P. and touches the P.P. 4 ft. to the right.

On this frustum, place centrally a Sphere so as to touch the P.P.

12. Draw a Square whose sides are each 4 ft. in length; the square is perpendicular to and touches the G.P. 4 ft. to the left and 2 ft. within the P.P.; the horizontal sides of the square retire towards the right, and make an angle of 45° with the P.P.

D.

13. Draw, *in outline only*, the object presented to you. Height of drawing four inches. *Use no instruments.*

Education Department, Ontario.

MIDSUMMER EXAMINATIONS, 1889.

THIRD CLASS TEACHERS

BOTANY.

Examiners: { J. J. Mackenzie, B.A.
John Seath, B.A.

NOTE.—*Candidates will take the first* FOUR *questions and any* ONE *of the last three.*

1. Describe fully and accurately the plant submitted, and illustrate your description by a floral diagram.

2. Illustrate by drawings the forms and the venation of the foliage leaves of the plant submitted.

3. Classify and name the plant. Mention some common Canadian plants which are related to it.

4. Draw a cross section and a longitudinal section of the ovary, and name the parts shown in your drawing. Make your drawing on a scale of one inch in diameter.

5. Show in what points an onion bulb differs from a potato tuber, and in what points they are similar.

6. Compare the floral envelopes of Hepatica, Aster, and Bellwort (Uvularia).

7. What is meant by placentation? Give four examples of Canadian plants in which different forms occur, and illustrate by drawings.

Education Department, Ontario.

MIDSUMMER EXAMINATIONS, 1889.

THIRD CLASS TEACHERS.

PHYSICS.

Examiners: { W. H. Ballard, M.A.
John Seath, B.A.

NOTE.—*Only seven questions are to be attempted. Candidates will omit one question in each of the groups* A, B, C, D.

A.

1. A piece of ice is forcibly kept at the bottom of a beaker, and the latter is then filled with water at 15°C.

(*a*) Describe accurately the changes which the water undergoes with respect to temperature; and

(*b*) State clearly what difference (if any) it will make if the ice is in the middle, instead of at the bottom of the water.

2. A person who has two fires to light in the morning finds that on lighting the second fire the stove invariably smokes although the two chimneys are known to draw equally well, and no difficulty was experienced on lighting the first fire.

(*a*) Explain the cause of this.

(*b*) If a window is now opened, the smoking instantly ceases. Account for this.

(*c*) If the window had been opened before the fire was lighted, would the stove have smoked? Give reasons for your answer.

(*d*) If the window is closed after the fire has been well started, why does the stove not smoke?

3 (*a*) A fall of rain in cold weather frequently causes the temperature to rise considerably. Explain the reason of this, and describe a simple experiment to illustrate the same principle.

(*b*) If some oil of turpentine is dropped upon a flagstone and ignited the flame will soon be extinguished, the rest of the oil remaining unburnt; but if it is poured upon a block of wood, the whole of the oil burns away. Explain the cause of this.

(OVER.)

B.

4. Describe experiments to show that solids, liquids and gases transmit sound vibrations.

What properties of matter affect the velocity of sound? Give illustrations.

5. On hearing with unusual distinctness steam whistles, bells, and other sounds, which are ordinarily either faint or inaudible, the listener concludes that it will rain soon. Explain the scientific grounds for his conclusion.

C.

6. If an electrical current be caused to heat a long thin platinum wire to dull redness, and a portion of the wire be cooled by applying a piece of ice to it, the remainder of the wire will glow much more brightly than before; whereas if a portion be heated by a spirit lamp the reverse effect takes place. Explain fully.

7. Explain the construction of the electric lamp and the production of the electric light.

8. Describe experiments to show

(1) That there are two kinds of electricity;

(2) That electrification is confined to the external surface.

D.

9. Explain the undulatory theory of light. Apply it to explain the cause of refraction.

10. Describe an experiment to show that the angle of reflection is equal to the angle of incidence.

11. An object is placed beyond the centre of curvature of a concave mirror, show, by a carefully constructed diagram, the position of the image.

Education Department, Ontario.

MIDSUMMER EXAMINATIONS, 1889.

THIRD CLASS TEACHERS.

LATIN GRAMMAR AND COMPOSITION.

Examiners: { J. E. Hodgson, M.A.
John Seath, B.A.

Note.—*Candidates will take* A *and either* B *or* C.

A.

1. State the general rules for (*a*) natural gender, and (*b*) grammatical gender.

2. Decline the following combinations:—*partes tres, Garumna flumen, extremis finibus, privata ædificia, quibus itineribus.*

3. Give the degrees of comparison of the adverbs corresponding to the following adjectives:—*longus, facilis, parvus, maximus, gravis, audax.*

4. Conjugate the verbs of which the following are parts:—*incolo, fiebat, permoti, suppeteret, comburunt, perrumpere, didicisse, intulerint, subvexerat, emi.*

5. Distinguish:—*relĭqui, relīqui; cecīdi, cecĭdi; īdem, ĭdem; pŏpulus, pōpulus; vĕni, vēni; dŭci, dūci.*

Express in Latin the following dates:—March 27th, April 5th, May 10th.

7. Translate into Latin:—

(*a*) Dumnorix married the daughter of Orgetorix.
(*b*) The daughter of Orgetorix married Dumnorix.
(*c*) Ambassadors came from the Ædui to Cæsar to ask aid.
(*d*) Cæsar had caused bridges to be built in order that his soldiers might cross the rivers more safely.

(over.)

(*e*) When the general was informed of these things, he ordered the state to furnish hostages.

(*f*) Cicero, the most eloquent of Roman orators, was born near (*apud*) Arpinum, lived (*ago*) the greater portion of his life at Rome, but visited Greece and spent six months at Athens.

B.

Translate into Latin using *direct* narration :—

In-olden-days (*olim*) their slaves formed a conspiracy against the Scythians (*Scythae*) and joined battle. They fought a long time. At length one of the Scythians said : "What in-the-world (*tandem*) are we doing? We ourselves are being killed whilst fighting with our slaves ; besides, if we kill them we shall have fewer. Therefore let us throw-aside (*omitto*) our spears and arrows (*sagitta*) and take our whips (*flagellum*) and make an attack on the slaves. They think now that they are our equals, but when we have taken the whips, they will remember their bondage (*servitudo*)." The Scythians listened (*pareo*) to these suggestions (*dictum*) ; the slaves at-sight-of (*video*) the whips betook themselves to flight.

C.

Translate into Latin using *indirect* narration :—

The ambassadors said that they entrusted (*permitto*) themselves and all their possessions to the protection (*fides*) of the Roman people, that they had never combined (*conjuro*) against the Roman people and that they were prepared to give hostages, to execute (*facio*) his commands, to receive him in their towns, and to assist him with corn and other things. That all the other Belgæ were in arms, and that the Germans who live on this side of the Rhine had joined them. So great, too, was their infatuation (*furor*) that they (the ambassadors) could not prevent the Suessiones, who were their own kinsmen (*consanguineus*) and used the same laws and customs, from joining (*consentio*) them.

Education Department, Ontario.

MIDSUMMER EXAMINATIONS, 1889.

THIRD CLASS TEACHERS.

LATIN AUTHORS.

Examiners: { J. E. Hodgson, M.A.
John Seath, B.A.

Note.—*Candidates will take* A *and either* B *or* C.

A.

1. (*a*) Translate each of the following extracts, and (*b*) explain the construction of the italicized portions:

(1) Interim quotidie Cæsar Æduos frumentum quod *essent* publice *polliciti, flagitare.*

(2) Eo autem *frumento* quod flumine Arare subvexerat, propterea *uti* minus poterat, quod iter ab Arare Helvetii averterant, a quibus discedere nolebat.

(3) Quin etiam, *quod* necessario rem *coactus* Cæsari enuntiarit, intelligere sese quanto id cum periculo *fecerit*, et ob eam causam, quam diu potuerit, tacuisse.

(4) Reperiebat etiam *inquirendo* Cæsar *quod* prœlium equestre adversum paucis ante *diebus* esset factum, initium ejus fugæ factum a Dumnorige.

(5) Ipse interim in colle medio triplicem aciem instruxit *legionum* quatuor veteranarum, *ita* uti supra se in summo jugo duas legiones quas in Gallia superiore proxime conscripserat, et omnia auxilia *collocaret.*

(OVER.)

B.

Translate into idiomatic English:—

Divitiacus multis cum lacrymis, Cæsarem complexus, obsecrare cœpit, "ne quid *gravius* in fratrem statueret: scire *se*, illa esse vera, nec quenquam ex eo plus, quam se, *doloris* capere, propterea quod, cum ipse gratia plurimum *domi* atque in reliqua Gallia, ille *minimum* propter adolescentiam posset, per se crevisset; quibus *opibus* ac nervis, non solum ad *minuendam* gratiam, sed pæne ad perniciem suam uteretur: sese tamen et amore fraterno et existimatione *vulgi* commoveri. Quod si quid ei a Cæsare gravius accidisset, cum ipse eum locum amicitiæ apud eum teneret, neminem existimaturum, non sua voluntate factum; qua ex re futurum, uti totius Galliæ animi a se averterentur." Hæc cum pluribus verbis *flens* a Cæsare peteret, Cæsar ejus dextram prendit; consolatus rogat, finem *orandi* faciat: *tanti* ejus apud se gratiam esse ostendit, uti et *reipublicæ* injuriam et suum dolorem ejus voluntati ac precibus condonet. Dumnorigem ad se vocat; fratrem adhibet; quæ in eo reprehendat, ostendit; quæ ipse intelligat, quæ civitas queratur, proponit; monet, ut in reliquum *tempus* omnes suspiciones vitet; præterita se Divitiaco fratri condonare dicit. Dumnorigi custodes ponit, ut, quæ agat, quibuscum loquatur, scire possit.

1. Parse fully the words printed in italics.

2. *ex eo.* To what does *eo* refer?

3. *amicitiæ.* Is this the subjective genitive or the objective genitive? Give reasons for your answer.

4. *Cæsarem complexus.* / *consolatus rogat.* } Why is the absolute construction not used?

5. *"ne quid . . . . crevisset.* Change to *direct* narration.

6. *dextram.* Supply the ellipsis.

7. Conjugate the verbs of which the following are parts:—*complexus, crevisset, uteretur, occidisset, futurum, peteret, prendit, condonet, ostendit, loquatur.*

8. Give other degrees of comparison of:—*gravius, plurimum, minimum.*

9. Break up the following compounds and give the force of each part:—*propterea, adolescentiam, existimatione, neminem, ostendit, condonet, adhibet, intelligat, suspicione, præterita.*

C.

Translate into idiomatic English :—

Cæsar, primum *suo*, deinde *omnium* ex conspectu remotis equis, ut, æquato omnium periculo, spem fugæ tolleret, *cohortatus* suos, prœlium commisit. Milites, e loco *superiore* pilis missis, facile hostium phalangem perfregerunt. Ea disjecta, gladiis destrictis in eos impetum fecerunt. Gallis magno ad pugnam erat *impedimento*, quod, pluribus eorum scutis uno ictu pilorum transfixis et colligatis, cum ferrum se inflexisset, neque evellere, neque, sinistra impedita, satis commode pugnare poterant; multi ut, diu jactato brachio, præoptarent scutum manu emittere, et nudo *corpore* pugnare. Tandem vulneribus defessi, et pedem referre, et quod mons suberat circiter mille *passuum*, eo *se* recipere cœperunt. Capto monte, et succedentibus nostris, Boii et Tulingi, qui hominum millibus circiter quindecim agmen hostium claudebant, et *novissimis* præsidio erant, ex itinere nostros *latere* aperto aggressi, *circumvenere*: et id conspicati Helvetii, qui in montem sese receperant, rursus instare et prœlium redintegrare cœperunt. Romani conversa *signa bipartito* intulerunt: prima, ac secunda acies, ut victis ac summotis resisteret; tertia, ut venientes exciperet.

1. Parse fully the words printed in italics.

2. Substitute a *quum* clause for any one of the absolute constructions in the extract.

3. *fugæ.* Is this the subjective genitive or the objective genitive? Give reasons for your answer.

4. Supply the ellipses in the extract.

5. *Capto* monte et *succedentibus* nostris. Account for the use of the perfect participle and of the present participle.

6. *Cohortatus suos.* } Why is the ablative absolute
Tandem vulneribus defessi. } not used?

7. Conjugate the verbs of which the following are parts :—*cohortatus, tolleret, perfregerunt, jactato, defessi, cœperunt, claudebant, aggressi, intulerunt.*

8. Give other degrees of comparison of :—*facile, commode, prima.*

9. Break up the following compounds and give the force of each part :—*conspectu, perfregerunt, disjecta, impedimento, evellere, commode, aggressi, receperant, summotis, exciperent.*

Education Department, Ontario.

MIDSUMMER EXAMINATIONS, 1889.

THIRD CLASS TEACHERS.

FRENCH GRAMMAR AND COMPOSITION.

Examiners: { W. H. Fraser, B.A.
J. E. Hodgson, M.A.

NOTE.—*Candidates will take any eight questions of section* I, *and all of section* II.

I.

1. Write ten short sentences, each one to contain one of the following forms, and serving as an illustration of its correct use: *du, la sienne, leur* (pron.), *celles-là, les* (pron.), *cet, en* (pron.), *en* (prep.), *quelles, quelques-unes.*

2. Translate into French: Has nobody seen my black hat? Has this merchant any fine hats? He has none. I am not angry at him, but he is angry at me. I do not know that gentleman, but I know his brother. At what o'clock did they (have they) come?

3. Show how a knowledge of the following parts of the verb *finir* may be used in forming its remaining tenses: *finir, finissant, fini,* the present tense indicative, and the past definite (or preterit definite) indicative.

4. Translate into French: Give me that pen; do not give it to her. Here are some pretty cards (*carte,* fem.); let us send them to him. Let us not send them (cards) to him to-day. Whose books are those? Mine; my father has just given them to me.

5. Translate into French: She has neither time nor money. An old gentleman and an old lady were at our house this morning. When do you intend to write to your friends? This gentleman is a physician, and he has two brothers who are physicians also. The letters I had written were not sent.

(OVER.)

6. Write a note, with examples, upon the comparison of adjectives.

7. Translate into French: Some one has stolen my gold watch. We were coming from your house, when it began to rain. Am I going, or are you going? I am having a stone house built. He must bring the money with him.

8. Re-write the following sentence (1) in interrogative form (two ways), (2) in negative form, (3) in interrogative negative form (two ways): *Une occasion se trouva bientôt.*

9. Translate into French: He has taken his pen, I have taken mine, and you have taken yours. The gardens in France are finer than those of this country. Go and get your umbrella; it might rain. It was raining yesterday, and I believe it might rain to-day. What were you reading this morning, when I knocked at your door.

10. State how the passive voice is formed in French, and translate the following into French: It is said that the King is dead. These girls have been praised by their mothers. We have been told that this house is to be sold. A house has been bought for me in this street. Is this house sold? No, it is not.

11. Translate into French: My room is larger than my brother's, but it is not so fine. Please give me some ink; I have no more. I should go to your house, if I had time It is said that the concert will not take place to-day. How long have you been learning French?

12. Write in full the pres. indic. of *s'en aller*, the imperfect indic. of *finir*, the past definite (preterit definite) of *faire*, the fut. indic. of *lire*, and the pres. subj. of *chanter*.

13. Translate into French: Give the children their toys. They arrived (have arrived) at half-past twelve last night. Are you thinking of what I said (have said) to you? Do not use that pen; use this one. Take care not to fall.

14. Translate the following, and state why the subjunctive is used in each case: Nous avions peur qu'il ne tombât. Il faut qu'on nous dise cela. Voilà la plus magnifique maison que j'aie jamais vue. Nous désirons beaucoup qu'il vienne nous voir. Qu'il fasse son devoir! Voilà le conseil que je lui donne.,

15. Translate into French : Do not take that chair ; take this one. The train will start (*partir*) at ten minutes to three. He goes to the city every week. We shall set out a week from to-morrow. He who studies is sure to succeed (*réussir*).

II.

Translate into French : When winter comes, the bear goes into a hole or cave, and there he makes a bed of leaves in order to sleep during the cold weather. When the snow comes, it covers the entrance (*entrée*) of the hole or cave, where the bear is hidden. He closes his eyes and seems to sleep the whole winter. In the spring, when the snow is gone, and the green leaves appear, and the birds begin to sing, the bear wakes from his long sleep. Then he sets out again to roam (*rôder*) in the woods and to hunt for fruit and the hives (*ruche*) of the wild bees.

Education Department, Ontario.

MIDSUMMER EXAMINATIONS, 1889.

THIRD CLASS TEACHERS.

FRENCH AUTHORS.

Examiners: { W. H. Fraser, B.A.
J. E. Hodgson, M.A.

NOTE.—*Candidates will take section* I, *and either section* II *or section* III.

I.

Translate:

Quand j'avais dix-huit ans, j'allais, durant la belle saison, passer le samedi à Versailles, ville qu'habitait ma mère. En sortant des barrières, j'étais toujours sûr de trouver un grand pauvre qui criait d'une voix glapissante: *La charité, s'il vous plaît, mon bon monsieur!* De son côté, il était bien sûr d'entendre résonner dans son chapeau une grosse pièce de deux sous.

Un jour que je payais mon tribut à Antoine,—c'était le nom de mon pensionnaire—il vint à passer un petit monsieur poudré, sec, vif, et à qui Antoine adressa son mémento criard: *La charité, s'il vous plaît, mon bon monsieur!* Le passant s'arrêta, et, après avoir considéré quelques moments le pauvre: "Vous me paraissez," lui dit-il, "intelligent et en état de travailler: pourquoi faire un si vil métier? Je veux vous tirer de cette triste situation et vous donner dix mille francs de rente." Antoine se mit à rire et moi aussi. "Riez tant que vous le voudrez," reprit le monsieur poudré, "mais suivez mes conseils, et vous acquerrez ce que je vous promets. Je puis d'ailleurs vous prêcher d'exemple: j'ai été aussi pauvre que vous; mais, au lieu de mendier, je me suis fait une hotte avec un mauvais panier, et je suis allé dans les villages et dans les villes de province, demander, non pas des aumônes, mais de vieux chiffons, qu'on me donnait gratis et que je revendais ensuite, un bon prix, aux fabricants de papier. Au bout d'un an, je ne demandais plus pour rien les chiffons, mais je les achetais, et j'avais en outre une charette et un âne pour faire mon petit commerce."

(OVER.)

1. Give the plur. of *voix*, *monsieur*, *chapeau*, *lieu* ; the masc. sing. of *belle*, *grosse* ; and the fem. sing. of *sec*, *vif*, *vil*, *vieux*.

2. Give the present infinitive of the following verbs, and write out in full the tense of which one person is given : *il vint*, *vous paraissez*, *je suis allé*.

3. *pièce*. Translate into French : *Give him a piece of this paper*.

4. *il vint à passer*. Translate : *Un monsieur vient de passer la fenêtre. Mon frère viendra passer samedi ici.*

5. *j'allais, durant la belle saison . . . je payais mon tribut.* Explain why the imperfect tense is used.

II.

Translate :

Nous avons en France, pendant l'été, plusieurs espèces d'hirondelles qui se retrouvent également dans tout le sud-ouest de l'Europe.

Lorsque la saison froide arrive, les insectes ailés meurent, et les hirondelles disparaissent pour aller chercher ailleurs la nourriture qu'elles ne trouvent plus dans nos pays. Il paraîtrait que parmi les hirondelles il reste quelquefois des individus qui, à l'époque du départ, n'avaient pas encore la force nécessaire pour entreprendre le voyage. On les voit encore voler quelques jours après que les autres ont disparu. Si ces pauvres hirondelles ne meurent pas de faim, ce qui est leur sort le plus ordinaire, elles s'engourdissent dans quelque trou, et celles qu'on a trouvées en cet état ont pu être ramenées à la vie par la chaleur, mais pour quelques instants seulement ; il est à croire cependant que quelques-unes restent ainsi tout l'hiver, et que le retour gradué de la chaleur les ranime peu à peu. Ce sont elles qu'on voit quelquefois pendant les premiers jours chauds de mars ou même de la fin de février, et ce sont elles sans doute qui ont donné lieu au proverbe *une hirondelle ne fait pas le printemps*, proverbe qu'on trouve dans presque toutes les langues de l'Europe.

1. *en France*. Translate into French : *In Canada ; in Toronto ; in this room ; in the garden ; in Europe.*

2. Give the present infinitive of the following verbs, and write out in full the tense of which one person is given : *ils meurent*, *il paraîtrait*, *il fait*.

3. *celles qu'on a trouvées ont pu être ramenées.* With what words do *trouvées* and *ramenées* respectively agree? Give reason for the agreement of the past participles *trouvées* and *ramenées.*

4. *il reste . . . les ranime.* Parse *reste* and *les.*

5. *proverbe qu'on trouve.* Why is *proverbe* without article?

III.

Translate:

Je me trouvais encore une fois au pouvoir des Français, et je pense que j'aurais passé un mauvais moment, si l'on m'eût ramené à Brest; mais, par bonheur, nous fûmes repris par la frégate anglaise *l'Amphitrite.* J'avais oublié de vous dire que dans le premier combat je fus blessé en deux endroits; je perdis quatre doigts de la main gauche, et j'eus la jambe emportée par un boulet de canon. Si j'avais été assez heureux pour perdre ma jambe et l'usage de ma main à bord d'un vaisseau du roi, et non sur un corsaire, j'aurais eu des droits à être vêtu et nourri pendant le reste de ma vie; mais le hasard ne l'a pas voulu. Comme dit le proverbe, l' un naît avec une cuiller d'argent dans la bouche, et l' autre avec une cuiller de bois. Cependant, je jouis d'une bonne santé, et j'aimerai toujours la liberté et la vieille Angleterre. Vive à jamais la liberté! la propriété et la vieille Angleterre!

Ayant ainsi parlé, le soldat estropié s'éloigna clopin-clopant, me laissant dans l'admiration de son intrépidité et de son contentement. Je reconnus alors qu'une longue familiarité avec la misère sert bien mieux que la philosophie à nous apprendre à la mépriser.

1. *Français.* Translate: *The French woman studies English in an English city.*

2. Give the present infinitive of the following verbs, and write out in full the tense of which one person is given: *nous fûmes, je perdis, je reconnus.*

3. *la main gauche . . . la jambe.* Why is the def. art. used?

4. *Vive la liberté!* Parse *vive.*

5. *bien mieux.* Parse both these words fully.

Education Department, Ontario.

MIDSUMMER EXAMINATIONS, 1889.

THIRD CLASS TEACHERS.

GERMAN GRAMMAR AND COMPOSITION.

Examiners: { W. H. Vander Smissen, M.A.
J. E. Hodgson, M.A.

Note.—*Only eight of the following questions are to be attempted; but all candidates must answer* I *and* II, *and either* VI *or* VII. *Where examples are given, they must not be taken from the sentences given for translation.*

I. Give in full the simple tenses of *haben, sein* and *werden* (indic. and subj.); also the perf. indic. of *sein.*

Translate into German not more than three of the following sentences:

1. Has she any books? Yes, she has some books. 2. He had the girl's flowers, and the pupil's pens. 3. It was cold yesterday, but to-day it is warm. 4. The curtains in this room are becoming old. 5. Where were the boys? They were in the house.

II. How are the compound tenses of all transitive verbs formed? Give an example of each tense, using a different verb in each example.

Translate into German not more than three of the following sentences:—1. Your gloves would have become old. 2. I should have bought these books. 3. She loves her father and mother, for they are good. 4. He would not have been contented. 5. We were praising her father's pictures.

III. Decline the definite article and define the use of the cases in German, with examples.

Translate into German not more than three of the following sentences:—1. He had this book, but she had those books. 2. This boy is buying apples for his sister. 3. This mother will buy her children some toys (*Spielsache*, f.). 4. I should be happy, if I were at home with my parents. 5. Her eyes are tired, because she has studied too much.

(over.)

IV. What is the difference between the declension of *dieser* and that of *mein*? Give three words declined after each of these models.

Translate not more than three of the following sentences: 1. My father sent his dog into the wood behind their house. 2. I shall take a walk with you to-morrow. 3. Have you ever been in this church? No, I have never been in it. 4. Her mother would have been angry, if she had made a noise. 5. I shall tell her that her brother has come.

V. What pronouns are used in addressing people in German, and how? Illustrate your answer by examples.

Translate not more than three of the following sentences: 1. Children, why are you crying? We are crying because we are ashamed. 2. Have you done your exercise, my son? No, father, I have not done it, for I was too tired. 3. He would have become a soldier, if he had not been too young. 4. What are you doing with your pen? I am writing a letter with it. 5. Has the tailor sent your coat home? No, but he will send it to-morrow.

VI. Define the place of the verb, participle and infinitive in a principal sentence, and give five compound sentences illustrating your answer.

VII. What is the difference in construction between principal and dependent sentences? Illustrate your answer by four complex sentences.

VIII. Name the relative pronouns and define their use, giving four examples.

IX. (*a*) Sketch in German, as briefly as possible, the outline of any one of Grimm's *Märchen*; or:

(*b*) Translate into German:

Alexander the Great caused (*lassen*) a priest from each country and nation (*Volk*, n.) he had conquered to assemble (*sich versammeln*) in his palace, and said: "Do ye all acknowledge (*erkennen*) and adore (*verehren*) one Most High, Invisible Being (*Weren*, n.)?" Then the priests bowed (*sich verneigen*, n.) and said: "Yea." And the king asked again: "By (*mit*) what name do you call (*nennen*) the same?" Then the priest from India said: "We call it Brahma, that is, the Great" (neut.); and so each priest had his own word and a different name, by which he called his Highest Being.

Then the king spake: "Ye have only one king, and ye shall henceforth (*fortan*) also have one name for the Highest God."

Then an old sage (*der Weise*) with grey head came forward (*hervortreten*) and asked the priests: "How do you call the heavenly (*himmlisch*) star (*Gestirn*, n.) of day, the source (*Quelle*) of earthly (*irdisch*) light? and each are named a different word, according to his country and nation." Then said the sage to the king: "Shall they not all henceforth call the star of day by the same word?"

Then the king replied: "Let every one use his own word. I see well that the image (*Bild*) and sign (*Zeichen*) is not the being."

X. Write answers, consisting of not fewer than ten words each, to not more than four of the following questions:—1. Wo sind Sie gestern gewesen? 2. Was werden Sie in den Ferien (*holidays*) machen? 3. Welche Leute sind am glücklichsten? 4. Was ist besser der Winter oder der Sommer? 5. Warum ist das Wetter im Winter kalt? 6. Warum lieben wir unser Vaterland?

Education Department, Ontario.

MIDSUMMER EXAMINATIONS, 1889.

THIRD CLASS TEACHERS.

GERMAN AUTHOR.

Examiners: { W. H. Vander Smissen, M.A.
J. E. Hodgson, M.A.

I.

Translate:

Die Hitze war drückender, je näher der Mittag kam, und Hans befand sich in einer Heide, die wohl noch eine Stunde dauerte. Da ward es ihm ganz heiss, so dass ihm vor Durst die Zunge am Gaumen klebte. "Dem Ding ist zu helfen," dachte Hans, "jetzt will ich meine Kuh melken und mich an der Milch laben." Er band sie an einen dürren Baum und stellte, da er keinen Eimer hatte, seine Ledermütze unter: aber so sehr er sich auch bemühte, es kam kein Tropfen Milch zum Vorschein. Und weil er sich ungeschickt dabei anstellte, so gab ihm das ungeduldige Tier endlich mit Einem der Hinterfüsze einen solchen Schlag vor den Kopf, dass er zu Boden taumelte und eine Zeitlang sich gar nicht besinnen konnte, wo er war.

1. Parse the following verbs, giving the principal parts of each: *kam, befand, ward, helfen, gab, besinnen.*

2. Parse *je* (l. 1), *da* (l. 3), *Dem Ding* (l. 4), *da* (l. 7).

3. *Baum, Kopf.* What case and why?

4. Account for the position of the following words in their respective sentences: *dauerte, Hans, ich* (l. 5), *laben, hatte* (l. 6), *unter* (l. 7), *konnte* (l. 12).

5. Give the gender of *Gaumen, Tropfen, Hinterfusz, Boden.*

6. Give the gen. sing. and nom. pl. of *Mittag, Ding, Kuh, Baum, Eimer, Tropfen, Tier, Schlag, Kopf.*

(OVER.)

II.

In not more than two of the following extracts, none of which are to be translated, give the gen. sing. and nom. pl. of all substantives, and the principal parts of all *strong* verbs, and account for the *position* of words, or parts of words, printed in *italics* in their respective sentences:

(*a*) Es trug sich *zu*, dass der Vater einmal in die Messe *ziehen* wollte, da fragte er die beiden Stieftöchter, was er ihnen mitbringen *sollte*? "Schöne Kleider," sagte die eine, "Perlen und Edelsteine," die zweite. "Aber du, Aschenputtel," sprach er, "was willst du haben?" "Vater, das erste Reis, das euch auf eurem Heimweg an den Hut *stöszt*, das brecht für mich ab."

(*b*) Brüderchen nahm sein Schwesterchen an der Hand und sprach: "Seit die Mutter tot *ist*, haben wir keine gute Stunde mehr: die Stiefmutter schlägt uns alle Tage, und wenn wir zu ihr kommen, *stöszt* sie uns mit den Füszen *fort*. Die harten Brodkrusten, die übrig bleiben, *sind* unsere Speise, und dem Hündlein unter dem Tisch geht's besser: dem wirft sie doch manchmal einen guten Bissen zu.

(*c*) Als es aber Mitternacht *war* und alles schlief, da sah die Kinderfrau, die in der Kinderstube neben der Wiege sasz und allein noch wachte, wie die Türe *aufgieng* und die rechte Königin *hereintrat*. Sie nahm das Kind aus der Wiege, legte es in ihren Arm und gab ihm zu trinken. Dann schüttelte sie ihm sein Kisschen, legte es wieder hinein und deckte es mit dem Deckbettchen *zu*.

(*d*) Da wollten sie es *begraben* aber es sah noch zu frisch *aus*, wie ein lebender Mensch, und hatte noch seine schönen roten Backen. Sie sprachen: "Das können wir nicht in die schwarze Erde *versenken*," und liessen einen Sarg von Glas machen, dass man von allen Seiten hindurchsehen konnte, legten Sneewittchen hinein und schrieben mit goldenen Buchstaben seinen Namen darauf, und dass es eine Königstochter *wäre*.

III.

Translate one only of the following passages:

(*a*) Der treue Diener besann sich lange, wie es anzufangen wäre, denn es hielt schwer, nur vor das Angesicht der Königstochter zu kommen. Endlich hatte er ein Mittel ausgedacht, und sprach zu dem König: "Alles, was sie um sich hat, ist von Gold: Tische, Stühle, Schüsseln, Becher, Näpfe und alles Hausgerät: in

deinem Schatze liegen fünf Tonnen Goldes, lass' Eine von den Goldschmieden des Reichs verarbeiten zu allerhand Gefäszen und Gerätschaften, zu allerhand Vögeln, Gewild und wunderbaren Tieren, das wird ihr gefallen.

(*b*) Der Spielmann antwortete: "Das ist mein und dein Haus, wo wir zusammen wohnen." Sie musste sich bücken, damit sie zu der niedrigen Tür hineinkam "Wo sind die Diener?" sprach die Königstochter. "Was Diener!" antwortete der Bettelmann, "du musst selber tun, was du willst getan haben. Mach' nur gleich Feuer an und stell' Wasser auf, dass du mir ein Essen kochst; ich bin ganz müde." Die Königstochter verstand aber nichts vom Feueranmachen und Kochen, und der Bettelmann musste selber mit Hand anlegen, dass es noch so leidlich gieng.

Education Department, Ontario.

DECEMBER EXAMINATIONS, 1889.

TRAINING INSTITUTES.

SCIENCE OF EDUCATION.

Examiners: { ALEXANDER STEELE, B.A.
JOHN SEATH, B.A.

NOTE.—*All candidates will take any three of questions 1—5, and any one of the remaining questions.*

1. "The teacher is bound to consider the circumstances or conditions favorable and unfavorable to the exercise (*i.e.* to discrimination)."—*Bain.*

State clearly what discrimination is, and show what circumstances are favorable and what are unfavorable to its exercise.

2. "In no other direction will educational training tell more powerfully, or beneficially, than in guiding and developing the power of attention.—*Landon.*

What means may the teacher use to secure attention and to develop its power?

3. "It would appear strange if this motive (social feeling) could ever be overlooked by the educator."—*Bain.*

What can be done by the teachers in our High Schools to arouse *esprit de corps* among their pupils; and what are some of the educational benefits to be derived from the existence of this feeling?

4. "It is not the knowledge stored up as intellectual fat that is of value, but that which is turned into intellectual muscle."—*Spencer.*

State concisely the kind of teaching fitted to transform knowledge into "intellectual muscle."

5. "In education success is to be achieved only by rendering our measures subservient to that spontaneous unfolding which all minds go through in their progress to maturity."—*Spencer.*

Discuss then the propriety of making a pupil attain considerable proficiency in English Composition before he begins the study of English Grammar. (OVER.)

6. "I am convinced that for general excellence no other training can compete with the classical.....They (*i.e.* classics) cultivate the taste, give great powers of expression, and teach a refined use of words, and thus impart that refinement and culture which characterize an educated gentleman."—*Prof. Bonamy Price.*

"The study of fine literary effects cannot be carried on in connection with Latin and Greek."—*Bain.*

Examine these statements, and state the principal arguments for and against the study of classics.

7. "It seems to be obvious at once that it (*i.e.* science) would leave portions—and those the largest and most important portions—of the youth's nature absolutely undeveloped."—*Price.*

"The language mind is the true aristocrat; the science mind is an inferior creation."—*Anon.*

Give your views of the value of the study of science (including mathematics), and state as definitely as you can what part of the "youths nature" this study leaves undeveloped.

8. "Of the benefits to be derived from the study of language a far higher proportion can be realized from the classical than from modern languages.....Living languages are learned by the ear; they are imbibed without thought or effort; they need awaken little reflection or judgment; their possession does not necessarily imply any great development of mind or soul."—*Price.*

"Excepting the conversational employment of them, the time spent on these languages (*i.e.* French and German) is quite thrown away."—*Bain.*

Criticize these statements, and mention any other benefits you believe to be obtained from the study of modern languages besides the ability to use them in conversation.

Education Department, Ontario.

DECEMBER EXAMINATIONS, 1889.

TRAINING INSTITUTES.

SCHOOL MANAGEMENT.

Examiners: { JOHN MILLAR, B.A.
J. A. MCLELLAN, M.A., LL.D.

NOTE.—*All candidates will take any four of the following questions.*

1. Show the importance of keeping authority in the back ground in securing effective moral training.

2. Develop the following statement:—

"To be thoroughly effective, punishments must be prompt, administered in earnest, clearly understood, proportioned to the degree of offence, suited to the character of the child, and in keeping with the nature of the fault."

3. Point out the dangers to be guarded against in dealing with the emotions of children.

4. Write notes on:—

(1) The formation of habit in children.
(2) The influence of example.
(3) The cultivation of conscience.

5. Show the importance of a correct training of the will. Show that every act of will, whether directly moral or not, may be made tributary to the formation of moral character.

6. Examine the advantages and the disadvantages of having the work of a High School divided among the masters on the basis of:—

(1) Subjects.
(2) Forms.

7. (*a*) Discuss, as to their respective values in determining promotions:—

(1) Final examinations.
(2) Class work including home exercises.
(3) The master's estimate.

(*b*) Which of these or what combination of them would you adopt in determining promotions?

Education Department, Ontario.

DECEMBER EXAMINATIONS, 1889.

TRAINING INSTITUTES.

HISTORY OF EDUCATION.

Examiners: { C. Clarkson, B.A.
J. E. Hodgson, M.A.

1. Should learning be made easy and pleasant? State briefly the attitude of any two of the following educationists towards this question, indicating your own views :—Milton, Comenius, Locke, Basedow, Pestalozzi, Spencer.

2. Enunciate three of Jacotot's paradoxes; comment on each to show its proper interpretation and your own valuation of its truth.

3. (*a*) Criticise Spencer's views on any one of the following topics :—Discipline, History, Language, Science.

(*b*) Supply an outline of his discussion of the question "What knowledge is of most worth?"

4. (*a*) What is the secret of the preference by Bain and Spencer of the teaching of sciences rather than languages? Show how this affects their views of moral education.

(*b*) Compare Locke's system of physical education with that of Spencer.

Education Department, Ontario.

DECEMBER EXAMINATIONS, 1889.

TRAINING INSTITUTES.

METHODS IN CLASSICS.

Examiners: { H. B. Spotton, M.A.
J. E. Hodgson, M.A.

NOTE. — *Candidates for Certificates as Specialists in Classics will take* I; *other candidates* II.

I.

Candidates will take questions 1 and either 2 or 3.

1. Καὶ ἤδη τε ἦν περὶ πλήθουσαν ἀγορὰν καὶ ἔρχονται παρὰ βασιλέως καὶ Τισσαφέρνους κήρυκες οἱ μὲν ἄλλοι βάρβαροι, ἦν δ' αὐτῶν Φαλῖνος εἷς Ἕλλην, ὃς ἐτύγχανε παρὰ Τισσαφέρνει ὢν καὶ ἐντίμως ἔχων· καὶ γὰρ προσεποιεῖτο ἐπιστήμων εἶναι τῶν ἀμφὶ τάξεις τε καὶ ὁπλομαχίαν. οὗτοι δὲ προσελθόντες καὶ καλέσαντες τοὺς τῶν Ἑλλήνων ἄρχοντας λέγουσιν ὅτι βασιλεὺς κελεύει τοὺς Ἕλληνας, ἐπεὶ νικῶν τυγχάνει καὶ Κῦρον ἀπέκτονε, παραδόντας τὰ ὅπλα ἰόντας ἐπὶ τὰς βασιλέως θύρας εὑρίσκεσθαι ἄν τι δύνωνται ἀγαθόν. ταῦτα μὲν εἶπον οἱ βασιλέως κήρυκες· οἱ δὲ Ἕλληνες βαρέως μὲν ἤκουσαν, ὅμως δὲ Κλέαρχος τοσοῦτον εἶπεν ὅτι οὐ τῶν νικώντων εἴη τὰ ὅπλα παραδιδόναι· ἀλλ', ἔφη, ὑμεῖς μέν, ὦ ἄνδρες στρατηγοί, τούτοις ἀποκρίνασθε ὅ τι κάλλιστόν τε καὶ ἄριστον ἔχετε· ἐγὼ δὲ αὐτίκα ἥξω. ἐκάλεσε γάρ τις αὐτὸν τῶν ὑπηρετῶν, ὅπως ἴδοι τὰ ἱερὰ ἐξῃρημένα· ἔτυχε γὰρ θυόμενος.

(*a*) Illustrate the methods of Ascham and Jacotot by reference to the above extract.

(*b*) State what you consider to be the characteristics of a good translation, and show, by reference to the passage above, how you would conduct an exercise aiming at drawing out such a translation from a class.

(*c*) Develop the syntax of the article as far as is possible with the extract before you.

(OVER.)

2. Explain minutely how you would teach the structure of Conditional Sentences (including the case of Indirect Discourse) in Latin, using the following examples for illustration:

What would he say, if you had been there?
What would you have said, if he had been killed?
I would regard you as a friend, if you did this.
If they cannot live, let them die.
If you ask my advice, I recommend this.
If we can, we shall destroy the bridge; if we cannot, we shall lay waste the fields.

3. Explain minutely how you would teach the structure of Final and Object Clauses in Greek, using the following examples for illustration:

They fear that the Greeks will attack them.
See to it, then, that you be men.
We must ask for boats, that we may sail away.
He wished to be a friend to the most powerful, that he might do wrong and not be punished.

II.

Pass candidates who are required to write on the paper on Methods in French and German, will take either (*c*) *or* (*d*) *of question 2; other Pass candidates will take either* (*a*) *or* (*c*) *of question* 1 *in* I.

1. Give notes of a first lesson on the conjugation of "amo".

2. Ad hæc cognoscenda, priusquam periculum faceret, idoneum esse arbitratus Caium Volusenum, cum navi longa præmittit. Huic mandat, uti, exploratis omnibus rebus, ad se quamprimum revertatur: ipse cum omnibus copiis in Morinos proficiscitur, quòd inde erat brevissimus in Britanniam transjectus. Huc naves undique ex finitimis regionibus et, quam superiore æstate ad Veneticum bellum fecerat, classem jubet convenire. Interim, consilio ejus cognito et per mercatores perlato ad Britannos, a compluribus ejus insulæ civitatibus ad eum legati veniunt, qui polliceantur obsides dare atque imperio Populi Romani obtemperare.

(*a*) You have a class of ten commencing to read Cæsar: give details of the course you would pursue in the earlier lessons, illustrating by reference to the extract.

(*b*) Shew by reference to the extract before you how you would illustrate the difference between a literal and an idiomatic translation, and state the characteristics of a good translation.

(*c*) Give full details of a lesson on noun-clauses, based upon the extract.

(*d*) Give full details of a lesson on the use of prepositions, based upon the extract.

Education Department, Ontario.

DECEMBER EXAMINATIONS, 1889.

TRAINING INSTITUTES.

METHODS IN ENGLISH.

Examiners: { ISAAC M. LEVAN, B.A.
JOHN SEATH, B.A.

NOTE.—*All candidates will take any three questions in section* I: *in addition, candidates for Specialist Certificates will take two in section* III, *of which No.* 3 *shall be one; and other candidates two in section* II, *of which No.* 3 *shall be one.*

I.

1. Explain your method of teaching Writing to a class in Form I of High Schools (Form V of Public Schools).

Discuss the educational value of Writing as a subject of study.

2. "Physical geography is the basis of all true geographical teaching." Discuss this statement.

3. What means would you take to make your lessons in History a training for the duties and the responsibilities of citizenship?

4. What directions and what assistance would you give to a class in Form I for writing a descriptive composition on Winter?

II.

1. Shew how you would teach, to a class in Form I of High Schools (Form V of Public Schools), a lesson on the Tense forms of the Active Indicative of the verb *love*.

2. Discuss the propriety of submitting to candidates at the High School Primary examination, questions in Literature on passages from works not prescribed. (OVER.)

3. Dear Harp of my Country! in darkness I found thee,
The cold chain of silence had hung o'er thee long,
When proudly, my own Island Harp, I unbound thee,
And gave all thy chords to light, freedom, and song!

The warm lay of love and the light note of gladness
Have waken'd thy fondest, thy liveliest thrill;
But, so oft hast thou echo'd the deep sigh of sadness,
That ev'n in thy mirth it will steal from thee still.

Dear Harp of my Country! farewell to thy numbers,
This sweet wreath of song is the last we shall twine!
Go, sleep with the sunshine of fame on thy slumbers,
Till touch'd by some hand less unworthy than mine;

If the pulse of the patriot, soldier, or lover,
Have throbb'd at our lay, 'tis thy glory alone;
I was *but* as the wind, passing heedlessly over,
And all the wild sweetness I waked was thy own.

(*a*) What home preparation of the foregoing selection would you require of pupils in Form I of High Schools (Form V of Public Schools)?

(*b*) Show, by means of one good example in each case, how you would treat the following points in teaching the foregoing selection:—(1) Metrical Structure, (2) Figurative Language, (3) Paraphrasing, (4) Synonyms, (5) Oral Reading.

III.

1. Show, by means of the words *may*, *shall*, and *have*, how you would explain to a class in Form III of High Schools the growth of verbs from presentiveness to symbolism.

2. Point out the resemblances and the differences between your methods of teaching Prose Literature and of teaching Poetical Literature. Give your reasons for the differences in treatment.

3. But to return to our subject. I have left the repository of our English kings for the contemplation of another day, when I shall find my mind disposed for so serious an amusement. I know that entertainments of this nature are apt to raise dark and dismal thoughts in timorous minds and gloomy imaginations; but for my own part, though I am always serious, I do not know what

it is to be melancholy; and can therefore take a view of nature in her deep and solemn scenes, with the same pleasure as in her most gay and delightful ones. By this means I can improve myself with those objects which others consider with terror. When I look upon the tombs of the great, every emotion of envy dies in me; when I read the epitaphs of the beautiful, every inordinate desire goes out; when I meet with the grief of parents upon a tombstone, my heart melts with compassion; when I see the tomb of the parents themselves, I consider the vanity of grieving for those whom we must quickly follow. When I see kings lying by those who deposed them, when I consider rival wits placed side by side, or the holy men that divided the world with their contests and disputes, I reflect with sorrow and astonishment on the little competitions, factions and debates of mankind. When I read the several dates of the tombs, of some that died yesterday, and some six hundred years ago, I consider that great day when we shall all of us be contemporaries, and make our appearance together.

(*a*) What home preparation of the foregoing passage would you require of a class in Form II of High Schools?

(*b*) Show, by means of one good example in each case, how you would treat the following points in teaching the foregoing selection:—(1) The means to obtain force or strength, (2) The means to obtain melody, (3) Sentence structure, (4) Paragraph structure, (5) The expansion and contraction of prose passages, (6) Oral reading.

Education Department, Ontario.

DECEMBER EXAMINATIONS, 1889.

TRAINING INSTITUTES.

METHODS IN FRENCH AND GERMAN.

Examiners: { J. H. Long, M.A., LL.B.
J. E. Hodgson, M.A.

Note.—*All candidates will take three questions in section* I., *one of the three being No.* 1; *in addition, Pass candidates will take two questions in section* II.; *and candidates for Specialist Certificates, two questions in section* III., *one of the latter two being No.* 9.

I.

1. Draw up a paper for an examination of an hour's length upon the following extract, giving the number of marks for each question:

"O chère et douce Pauvreté! Pardonne-moi d'avoir un instant voulu te fuir comme on eût fui l' indigence; établis-toi ici avec tes charmantes soeurs, la Pitié, la Patience, la Sobriété, et la Solitude; soyez mes reines et mes institutrices; apprenez-moi les austères devoirs de la vie; éloignez de ma demeure les infirmités de coeur et les vertiges qui suivent la prospérité. Pauvreté sainte! apprends-moi à supporter sans me plaindre, à partager sans hésitation, à chercher le but de l'existence plus haut que les plaisirs, plus loin que la puissance."

2. Explain clearly your method of teaching a junior class the principles of French pronunciation; and draw up a schedule to shew the sounds of letters and combinations of letters in French.

3. "He who knows no language other than his own, knows not well his own."

Discuss the correctness of this statement, with special reference to the bearing of a knowledge of French and German upon a knowledge of English.

4. Give your views upon the question of a literal translation *vs.* an idiomatic translation. Illustrate your answer by referring to the passage in question 1. (over.)

II.

5. Write a paper upon the employment of Dictation and Composition in teaching a foreign language. In which language, French or German, will the pupil find greater difficulty in Dictation and Composition? Give reasons for your answer.

6. Discuss the feasibility of adopting in High Schools the method of teaching French or German whereby grammars are but little used, and explanations and questions are given in the foreign language.

7. "It is doubtful whether any other language can be acquired by a foreigner so readily as English."

Discuss fully the correctness of this statement, with reference especially to French and German respectively.

III.

8. What are, in your opinion, the two hardest subjects for English-speaking pupils in (1) French Grammar, and (2) German Grammar? Give reasons for your selection.

9. Sketch a lesson (to last forty-five minutes) upon the following, indicating clearly the object aimed at in each step of your procedure:

"Im Tannenbühl, wo die Bäume dichter standen, sasz er ab, band sein Pferd an, und gieng schnellen Schrittes dem Gipfel des Hügels zu; und als er vor der dicken Tanne stand, hub er seinen Spruch an:

"Schatzhauser im grünen Tannenwald,
Bist schon viel hundert Jahre alt;
Dein ist all' Land wo Tannen steh'n,
Lässt dich nur Sontags—Kindern seh'n."

Da Kam das Glassmänlein hervor, aber nicht freundlich und traulich, wie sonst, sondern düster und traurig."

10. "Nothing awakens greater interest in the study of the French language than a sketch of its origin and development, of its diffusion and its dialects. This applies to Canadians especially."

A class is before you: you wish to awaken this interest in the way indicated. Explain your method.

Education Department, Ontario.

DECEMBER EXAMINATIONS, 1889.

TRAINING INSTITUTES.

METHODS IN SCIENCE.

Examiners: { D. Forsyth, B.A.
John Seath, B.A.

Note.—*All candidates will take the two questions in section* I; *in addition, candidates for Specialist Certificates will take any two in section* III, *and other candidates, any two in section* II.

I.

1. (*a*) Discuss the advantages and the disadvantages of each of the following Methods in Chemistry:

(1) The Didactic Method, (2) The Lecture-room Method, (3) The Working-Laboratory Method, with or without a text-book.

(*b*) Outline the method you would adopt in a school with no provision for practical work by the pupils, but with a table and a fair supply of apparatus?

2. "Mere note-taking is often one of the most delusive and unfruitful of practices."

Discuss this statement, shewing its bearing on a course of Elementary Physics.

II.

1. "Experimental Physics is a type of the Inductive method." Explain.

2. (*a*) State, with reasons, when, in a course of Elementary Chemistry, you would introduce Chemical Formulae; and

(*b*) How would you shew the precise meaning of the equation: $H_4C+2O_2=2H_2O+CO_2$?

3. Give notes of a lesson on (1) *Adhesion*, or (2) *Cohesion* as found in the parts of a flower, and indicate how you would introduce the necessary terminology.

(over.)

III.

1. (*a*) "No teaching deserves the name of Science which is a teaching of facts and operations only."

(*b*) "The ultimate object to be attained in the pursuit of physical science is the perception of what is called a *law*."

Examine the foregoing statements, illustrating your remarks by reference to a lesson on

(1) The Conservation of Energy,

or (2) The Law of Chemical Equivalents.

2. Give in detail the preparations you would make for a practical lesson on any two of the following subjects:

(1) Reproduction of plants from buds;

(2) Assimilation of carbon;

(3) Inflorescence;

and explain how you would deal with each of these two subjects.

3. Discuss the educational value of Practical Zoology in the High School programme; and explain how you propose to use the authorized text-book, illustrating by reference to the Cat-fish.

Education Department, Ontario.

DECEMBER EXAMINATIONS, 1889.

TRAINING INSTITUTES.

METHODS IN MATHEMATICS.

Examiners: { J. A. McLellan, M.A., LL.D.
T. M. Henry, B.A.

Note.—*Pass candidates will take any four questions in* A *and any two in* B. *Specialists will take any five in* A *and any two in* C.

A.—*For all.*

1. "I believe that Arithmetic, if it deserves the high place it conventionally holds in our educational system, deserves it mainly on the ground that it is to be treated as a logical exercise."—*Fitch.*

Exemplify this mode of treatment in teaching

(1) Multiplication of integers and of fractions,

(2) Greatest Common Measure of two or more integers.

2. "From the concrete to the abstract." Explain this maxim. Use it to show, in opposition to *Bain*, that the "labour of learning the multiplication table" *is* "to be extenuated."

3. "When we come to the real business of Geometry, we are refused appeals to the senses, or the concrete." Discuss this subject.

4. Point out the difficulties a beginner is likely to meet with in mastering the Fourth Prop., Bk. I (Euclid). Show how you would use knowledge of this proposition to lead to an easy mastery of Prop. V (the "Pons").

5. Outline a lesson on *Simple Equations of two unknowns and how to solve them.*

6. How would you teach *the factoring of binomials?*

7. Give a first lesson on *Theory of Indices*, showing clearly the force of the word *theory*. (over.)

B.—*For Pass candidates only.*

8. What questions would lead a class into the best line of thought in solving the following problem:—

A man sold his carriage for half as much again as his horse, thereby gaining 25 per cent. of cost on the latter, but losing 25 per cent. of cost on the former. Find the gain or loss per cent. on both.

9. Give your method of teaching *the rule of signs in Algebraic Multiplication.*

10. Show how "number forms" are to be used in giving first lessons in numbers, stating explicitly the psychological reasons underlying the plan you suggest.

C.—*For Specialists only.*

11. By questioning lead to (1) an Arithmetical, (2) an Algebraic solution of the following problem:—

A and B dig a ditch 120 rods long. The soil at one end is clay and at the other end sand. If the whole of the ditch were sand A could dig it alone in 30 days and B in 24 days. If the whole length were clay A could dig it in 40 days and B in 60 days. A begins at the clay soil and B at the sandy; they together dig the ditch in 17 days. What length of the ditch was clay?

12. Show how to teach the resolution of any class of expressions included in the general form ax^4+bx^2+c.

13. "The methods in Geometry, Algebra, and Higher Mathematics are the methods for impressing abstract and symbolical notions and principles." Explain and illustrate.

Education Department, Ontario.

JUNE, 1889.

SECOND CLASS PROFESSIONAL EXAMINATION.

NORMAL SCHOOLS.

HISTORY OF EDUCATION.

Examiner:—CORNELIUS DONOVAN, M.A.

NOTE.—*Only four questions are to be attempted.*

1. "The Greek and Roman ideals are the complement of each other." Fully describe these ideals, and shew how each may be considered the complement of the other.

2. Write a short historical account of the Humanistic Education, including references to its chief representatives and the services each rendered to give it system and effect.

3. Detail the methods of John Locke and comment on their value. State, in a general way, how his ideas differed from those of Rabelais.

4. Compare the character of Rousseau's "Emile" at fifteen, with that of a youth educated exclusively according to the methods of Comenius. Assign causes for the peculiar differences indicated in this comparison.

5. "Herbart may be regarded as the founder of modern scientific pedagogics." Explain the peculiar features of the Scientific School. Give an account of Herbart's system under its three branches—Government, Instruction, Discipline.

6. Name the school of educationists to which you suppose Pestalozzi belonged, and give reasons for your opinion. State the extent and character of Pestalozzi's influence on the general theory and practice of education.

Education Department, Ontario.

JUNE, 1889.

SECOND CLASS PROFESSIONAL EXAMINATION.

NORMAL SCHOOLS.

SCIENCE OF EDUCATION.

Examiner—M. J. Kelly, MD., LL.B.

Note.—*Not more than six questions are to be attempted. All are of equal value.*

1. Define (*a*) Individual, (*b*) General Concept. Indicate the three stages in the active mental process by which Concepts are formed. State some of the causes of inaccuracy in Conception, and how you would obviate them.

2. State the different modes of Perception with the relative dominance of each. When and how are they most susceptible of improvement?

3. Indicate briefly the theories respecting the origin of Knowledge. State the principal views of the schools of philosophy in relation thereto.

4. "All things that exist exist only in the mind, that is, they are purely notional. That the things I see with my eyes and touch with my hands do exist, really exist, I make not the least question. The only thing whose existence we deny is matter or corporeal substance."—*Berkeley.* Reconcile (if you can) these statements.

5. "Attention enters as a constituent into all classes of mental operation." Indicate the means and methods by which you would seek to stimulate it.

6. Describe the nature and process of ratiocination. Distinguish (*a*) *implicit* and *explicit* reasoning, (*b*) *assent* and *certitude.*

7. How would you develop the growth of (*a*) the intellectual, (*b*) the æsthetic, and (*c*) the ethical or moral sentiment in the minds of the young?

8. "It must be borne in mind that with the young memory is strong, and logical perception weak. All teaching should start on this undoubted fact."—*Thring.* At this stage, of what character should the teaching be?

Education Department, Ontario.

JUNE, 1889.

SECOND CLASS PROFESSIONAL EXAMINATION.

NORMAL SCHOOLS.

METHODS IN ENGLISH.

Examiner—J. F. White.

Note.—*Four questions a full paper; of these Nos. 1, 6 should form two.*

1. (*a*) Detail your method of teaching Reading to a Third Book Class, stating what preparation you would expect from the pupils, and how you would detect and correct errors.

(*b*) What is the importance of each of the following, and to what extent should each be employed:—simultaneous reading, silent reading, reading for pupils' imitation?

2. What work in Composition should pupils have taken up before entering a Third Book Class? Give six examples of different subjects suitable for Composition in this grade, and state briefly your method of teaching the subject.

3. (*a*) Shew the several ways in which a child's vocabulary may be extended? How, and at what stage, may he be introduced to the use of a dictionary?

(*b*) In what grades would you give each of the following as an Object Lesson? Explain. Give the heads of one intended for a Fourth Book Class. *A dog, water, money, a river, dew, thermometer, a knife.*

4. (*a*) Outline one lesson from each of the following divisions: (1) gender, tense, complements of the subject; (2) transitive verbs, classification of pronouns, indirect object.

(*b*) In the selection in question 6, give eight of the chief grammatical difficulties to which you would direct your pupils' attention? Shew briefly how you would explain *two* of them.

(over.)

5. (*a*) "There is no subject in which it is more necessary for you to emancipate yourselves from the domination of text-books, and to arrange the facts for yourselves." — *Fitch.*

Fully explain the force of the above comment on the teaching of Geography, and shew in what order the geographical facts of a country should be taught.

(*b*) Outline a lesson in History, suitable for a Fourth Book Class, on *one* of the following topics :—Feudal System, Great Rebellion, Literature of the Victorian Era.

6. (*a*) Explain how Reading and Literature may be made mutually helpful and illustrate from the accompanying selection.

(*b*) State the most important points to be brought out in teaching Literature. Illustrate by the following selection, giving two specimen questions on each different important point:

ETHEREAL minstrel! pilgrim of the sky!
Dost thou despise the earth where cares abound?
Or, while the wings aspire, are heart and eye
Both with thy nest upon the dewy ground?
Thy nest, which thou canst drop into at will,
Those quivering wings composed, that music still.

To the last point of vision, and beyond,
Mount daring warbler! that love-prompted strain
('Twixt thee and thine a never-failing bond)
Thrills not the less the bosom of the plain:
Yet might'st thon seem, proud privilege! to sing
All independent of the leafy spring.

Leave to the nightingale her shady wood:
A privacy of glorious light is thine;
Whence thou dost pour upon the world a flood
Of harmony, with instinct more divine:
Type of the wise who soar, but never roam;
True to the kindred points of Heaven and Home.

Education Department, Ontario.

JUNE, 1889.

SECOND CLASS PROFESSIONAL EXAMINATION.

NORMAL SCHOOLS.

METHODS IN MATHEMATICS AND SCIENCE.

Examiner :—W. H. BALLARD, M.A.

NOTE.—*Only four questions are to be attempted, namely, group* A, *and one from each of the groups* B, C, D.

A.

1. State fully what is involved

(1) in a good method of teaching Mathematics;

(2) in a good method of teaching Natural Science;

pointing out carefully where these methods resemble, and where they differ from, each other.

B.

2. Give a scheme of a lesson in Arithmetic which shall fulfil the requirements of a good method of mathematical teaching, and point out the particular part of this scheme in which each of these requirements is met.

3. Assuming that a pupil should spend a year and a half in the Third Reader, lay out a course in Arithmetic for each half year of that time, and give directions as to the methods to be pursued in teaching during each of these periods.

C.

4. "The main reason for teaching some branch of Physical Science is to be found in considering the sort of processes by which the truths of such science are investigated and the faculties of mind which are exercised in the course of physical investigations."

Explain fully the "sort of processes," and the "faculties of mind" here referred to.

(OVER.)

5. Give a scheme of a lesson in Botany that shall fulfil the requirements of a good method of Science teaching, and point out the particular part of this scheme in which each of these requirements is met.

D.

6. Give an outline of your method of teaching each of the following:

(1) Division of Decimals;

(2) The formation of clouds, to a class in the Fourth Reader.

7. How would you teach

(1) The Thermometer, to a class in the Third Reader?

(2) The method of factoring $a^2 - b^2$ and similar expressions?

Education Department, Ontario.

JUNE, 1889.

SECOND CLASS PROFESSIONAL EXAMINATION.

NORMAL SCHOOLS.

SCHOOL ORGANIZATION AND MANAGEMENT.

Examiner:—J. J. Tilley.

Note.—*Only four questions are to be answered.*

1. "Education in its broadest sense, will include all the influences brought to bear upon us, which modify in any degree the growth or character of our powers as human beings."
Discuss this statement.

2. Mention the principal things to be considered in constructing a time-table, under the following headings:
(*a*) Distribution of time,
(*b*) Providing work for pupils,
(*c*) Arrangement of subjects for recitation,
(*d*) Number of recitations,
(*e*) Alternation of subjects.

3. Write brief notes on the influence of the following, and give your reasons for or against their use as aids to school management:
(*a*) Emulation,
(*b*) Rewards,
(*c*) Book-tasks,
(*d*) Corporal punishment,
(*e*) The discipline of consequences,
(*f*) Motives.

4. (*a*) How is voluntary attention secured?
(*b*) What conditions are necessary in order that attention may be sustained?
(*c*) Can attention be secured solely by compulsion from without? Give reasons for your answer.
(*d*) Speak of the will in connection with attention.

(OVER.)

5. Give your views of questioning under the following headings :

(*a*) Relation of questioning to teaching,
(*b*) Different methods of questioning with examples.
(*c*) Conditions that must be present in good questions,
(*d*) Rules to be observed in "class questioning."

Name the principal defects in questioning which you have noticed.

Education Department, Ontario.

DECEMBER, 1889.

SECOND CLASS PROFESSIONAL EXAMINATION.

NORMAL SCHOOLS.

HISTORY OF EDUCATION.

Examiner:—CORNELIUS DONOVAN, M.A.

NOTE.—*Only four questions are to be attempted.*

1. State the objects of the Greek and Roman systems of education respectively, and briefly outline the method by which each sought to attain its object.

2. Compare the method of John Sturm with that of John Amos Comenius; state which of these methods you prefer, and give reasons for your opinion.

3. "Our object," says Montaigne, "is to breed not a grammarian or a logician but a complete gentleman." Describe the method of Montaigne and shew how far it is consistent with the above remark.

4. Mention the principal new features in Education introduced by (*a*) the English Realists, (*b*) the Metaphysical School, giving the name of a leading representative of each system.

5. Pestalozzi considered the end of education to be "the harmonious development of all the natural powers." Review and criticise his arguments in favor of this theory.

Education Department, Ontario

DECEMBER, 1889.

SECOND CLASS PROFESSIONAL EXAMINATION.

NORMAL SCHOOLS.

SCIENCE OF EDUCATION.

Examiner :—THOMAS PEARCE.

NOTE.—*Only five questions are to be attempted.*

1. Discuss briefly the question: How do we gain a knowledge of an external and material world? Touch also upon the origin of *necessary ideas*.

2. Show how the *intellect*, the *sensibility*, and the *will* are related to one another.

3. State the theories respecting *acquired perceptions*, with which you are acquainted.

4. Explain briefly the primary laws of *association;* enumerate its secondary laws and point out the educational deductions that follow therefrom.

5. Show how *concepts* are formed and explain the relation between the *comprehension* and the *extension* of a concept.

6. Describe briefly the various functions of the *elaborative faculty*.

7. "The most important method of widening emotional life, is arousing personal *sympathy* and *love*."

Discuss this statement from the teacher's point of view.

Education Department, Ontario.

DECEMBER, 1889.

SECOND CLASS PROFESSIONAL EXAMINATION.

NORMAL SCHOOLS.

METHODS IN ENGLISH.

Examiner—J. F. White.

NOTE.—*Only four questions are to be answered, of which 1, 4 and 6 should form three.*

1. (*a*) Describe the 'word and phonic' method of teaching Reading, stating its advantages over other methods. When and how would you teach (1) the names of the letters, (2) their sounds, (3) their formation by writing?

(*b*) What means would you take to secure clear and accurate pronunciation and expressive reading in your fourth class?

2. (*a*) State the advantages of dictation over oral spelling. What other methods would you employ in the several classes?

(*b*) Shew your method of teaching Composition in the second class, stating the extent of the work for this grade, and your means of detecting and correcting errors. Give a list of six subjects suitable for a fourth class.

3. (*a*) "Pure Grammar has scarcely any practical bearing on the improvement of our speech."—*Fitch.*

Discuss this statement: shew then, the value of teaching English Grammar.

(*b*) Outline *one* lesson from *each* of the following sections, stating for what class it is suited:

(1) Gender Nouns; Complex Sentences; Forms of the Subject.

(2) Participles; Indirect Object; Government and Agreement.

4. (*a*) "We are to keep the three forms of Geography teaching separately in view and to take care that each receives the consideration which is due to it and no more."—*Fitch.*

What are these three forms and what value do you attach to each?

(*b*) Teach, as to a fourth class, a lesson on the natural resources of Canada.

(OVER.)

5. "So unsatisfactory is the intellectual result of much of the labor spent on teaching History to children, that many authorities of great weight advocate the omission of the subject altogether."—*Fitch.*

Fully discuss the above. State your method of teaching to secure a satisfactory result, and illustrate by giving teaching notes on *one* of the following subjects:

The Great Charter.
The Commonwealth.
Literature of the Stuart Period.
British North America Act.

6. (*a*) By means of examples from the accompanying selection shew how your teaching of Literature is made helpful to expressive Reading.

(*b*) Detail your method of teaching the Literature of the following. State the different important features that should be brought out in such a lesson, and the value of each:

Beside yon straggling fence that skirts the way,
With blossomed furze unprofitably gay,
There, in his noisy mansion, skilled to rule,
The village master taught his little school.
A man severe he was, and stern to view;
I knew him well, and every truant knew.
Well had the boding tremblers learned to trace
The day's disasters in his morning face;
Full well they laughed, with counterfeited glee
At all his jokes, for many a joke had he;
Full well the busy whisper, circling round,
Conveyed the dismal tidings when he frowned.
Yet he was kind, or, if severe in aught,
The love he bore to learning was in fault.
The village all declared how much he knew—
'Twas certain he could write and cipher too;
Lands he could measure, terms and tides presage,
And even the story ran—that he could gauge;
In arguing too, the parson owned his skill,
For even though vanquished, he could argue still;
While words of learned length and thundering sound
Amazed the gazing rustics ranged around;
And still they gazed, and still the wonder grew,
That one small head could carry all he knew.
But past is all his fame. The very spot
Where many a time he triumphed is forgot.

NOTE.—*The candidate is not expected to teach the Literature of the whole selection.*

Education Department, Ontario.

DECEMBER, 1889.

SECOND CLASS PROFESSIONAL EXAMINATION.

NORMAL SCHOOLS.

METHODS IN MATHEMATICS AND SCIENCE.

Examiner :—W. H. Ballard, M.A.

Note.—*Only four questions are to be attempted, namely, two from group* A, *and two from group* B.

A.

1. Give a scheme of a lesson in Vulgar Fractions which shall fulfil the requirements of a good method of mathematical teaching, and point out the particular part of this scheme in which each of these requirements is met.

2. What is involved in knowing a number? What facts, as to the combinations, &c., in the number 12 do you think a child could find out for himself?

Describe fully the methods you would adopt to guide him in making these discoveries.

3. Give an outline of your method of teaching each of the following :—

(1) The method of factoring $a^2 + 5a + 6$, and similar expressions;

(2) The rectangle contained by the sum and difference of two straight lines is equal to the difference of the squares described on these straight lines.

B.

4. Discuss the value of science teaching

(1) as a part of mental training for the duty of life,

(2) as tending to promote industrial progress.

(over.)

5. Describe accurately the different points that must be observed in conducting a series of experiments in order that the requirements of a good method of science teaching may be fully met.

State the advantages and disadvantages of elaborate and costly apparatus in science teaching.

6. Give your scheme of a series of lessons on the germination of seeds in order that the child may be led to discover for himself the influence of temperature, moisture and light upon living seeds.

Education Department, Ontario.

DECEMBER, 1889.

SECOND CLASS PROFESSIONAL EXAMINATION.

NORMAL SCHOOLS.

SCHOOL ORGANIZATION AND MANAGEMENT.

Examiner:—J. J. Tilley.

Note.—*Only four questions are to be answered.*

1. (*a*) Define School Organization.
   (*b*) Speak in detail of what it includes.
   (*c*) Show the relation between School Organization and School Management.

2. Mention, with reasons, the various things that must be considered and provided for in constructing a time-table for an ungraded school.

3. (*a*) What is the chief end of school government.
   (*b*) Compare government through the exercise of authority by the teacher with government secured through the will-power of the pupil.
   (*c*) By what means will you seek to secure the latter?

4. "The natural child cannot be governed successfully by unnatural laws."

   Discuss this statement and show the correctness of it by illustrations.

5. Speak of the relative merits of the following as aids to efficient school management:

   Precept.
   Example.
   Cultivation of proper motives.
   Rewards.
   Punishments.
   Emulation.
   Habits of obedience formed through drill and class tactics.

Education Department, Ontario.

COUNTY MODEL SCHOOLS.

DECEMBER, 1889.

EDUCATION—METHODS.

NOTE.—*Only seven questions are to be answered.*

1. (*a*) Explain the different methods of teaching reading to beginners.

(*b*) Give the advantages and the disadvantages of each.

2. Show how you would teach

(*a*) The notation of numbers from 9 to 20.

(*b*) The multiples of ten from 20 to 50.

3. Give notes of a language lesson suitable for a Part II class.

4. (*a*) Explain the difference between teaching by *induction* and by *deduction*.

(*b*) Give two examples of each.

(*c*) When should the former give place to the latter?

5. Give teaching notes of a lesson in history, taking the Civil War in the reign of Charles I as your subject.

6. "In teaching we should proceed from the *concrete* to the *abstract*."

Show by an example (i) from arithmetic, (ii) from grammar, (iii) from geography, how you would follow this rule.

7. Show how you would teach the analysis of the following:

She was a phantom of delight
When first she gleamed upon my sight;
A lovely apparition, sent
To be a moment's ornament;
Her eyes as stars of twilight fair;
Like twilight's too, her dusky hair.

(OVER.)

8. Give brief teaching notes of a literature lesson on the following:

Near yonder copse where once the garden smiled,
And still where many a garden-flower grows wild,
There, where a few torn shrubs the place disclose,
The village preacher's modest mansion rose.
A man he was to all the country dear,
And passing rich with forty pounds a year.
Remote from towns he ran his godly race,
Nor e'er had changed, nor wished to change his place;
Unskilful he to fawn, or seek for power,
By doctrines fashioned to the varying hour;
Far other aims his heart had learned to prize,
More bent to raise the wretched than to rise.

Education Department, Ontario.

COUNTY MODEL SCHOOLS.

DECEMBER EXAMINATIONS, 1889.

THEORY OF EDUCATION.

NOTE.—*Not more than five questions are to be answered. Questions of equal value.*

1. What would be your special work the first day on taking charge of an ungraded school? How would you be guided in classifying the pupils?

2. "Teaching power is determined by the ability to secure and retain attention." Discuss this statement.

What are (1) the favorable, (2) the unfavorable conditions of a good recitation?

3. Write briefly on (*a*) Methods of seating; (*b*) Home-work; (*c*) Marking recitations; (*d*) Arranging a time-table; (*e*) How to deal with whispering.

4. State and illustrate the differences between the Socratic, the topic and the discussion methods of questioning.

What forms of questioning are unsuited for junior classes? Give reasons.

5. Discuss and illustrate *any three* of the following principles:

(1) Ideas should precede words.
(2) All true education is self-education.
(3) Primary education should be given in the concrete.
(4) Lead gradually from particular to general ideas.
(5) Train the memory to operate by the laws of association and suggestion.

6. "Punishment as an educational means is essentially corrective." Explain this statement clearly, and state the chief means of punishment you would employ in your school.

Education Department, Ontario.

COUNTY MODEL SCHOOLS.

DECEMBER, 1889.

TEMPERANCE AND HYGIENE.

Value 50.

NOTE.—*Only four questions are to be answered. Questions of equal value.*

1. Describe the systemic or general circulation, also the lesser or pulmonary circulation of the blood and the changes in the color and condition of the blood in the systemic and pulmonary capillaries.

2. Estimate the quantity of pure, external air required per hour by one person, upon the supposition that the amount of carbon dioxide exhaled is 0·6 of a cubic foot per hour, and that the maximum amount of impurity admissible is 0·2 per 1000 in addition to the 0·4 per 1000 already in the air.

3. What is the meaning of "Contagious Diseases"? How are they supposed to be communicated? What steps should be taken during and after their existence to prevent infection?

4. How are the involuntary muscles which regulate the flow of blood affected by the use of alcohol. Describe an experiment upon animals which tends to confirm this opinion.

5. Describe the results of the habitual use of alcohol on any four of the following: the mucous membrane, the stomach, the liver, the kidneys, the blood, the brain, length of life.

6. What are the causes of injury to the sight of school children? How may injuries and defects of vision be relieved by the regulation of light, heat, desks, &c.?

Education Department, Ontario.

COUNTY MODEL SCHOOLS.

DECEMBER, 1889.

SCHOOL LAW AND REGULATIONS.

Questions of equal value.

1. State what the Regulations require of a teacher with reference to the exercise of discipline in his school and the cultivation of good habits among his pupils.

2. Name the offences for which a teacher may suspend a pupil, and state how such suspension may be removed. Under what circumstance may a pupil be expelled?

3. What is the duty of a teacher when he has reason to believe that a pupil attending school is affected with or exposed to any contagious disease? What contagious diseases are mentioned?

4. Give the law with reference to

(*a*) Agreements between teachers and trustees,

(*b*) Payment of salaries for vacations,

(*c*) Payment for loss of time caused by sickness.

5. Briefly state the duty of teachers regarding: Registers, Visitors' Books, Time Tables, Text Books, Public Examinations.

Education Department, Ontario.

JUNE, 1889.

EXAMINATION FOR KINDERGARTEN ASSISTANTS.

THEORY AND PRACTICE OF THE OCCUPATIONS.

Thursday, June 27th,
1.30 to 4.

1. Draw ten different mathematical figures, and, by additions to them, transform them into forms of life.

2. Classify the quadrilaterals.

3. Under what two divisions does the Kindergarten sewing fall? What objects are to be attained in each?

4. What use may be made of the straws and colored papers used as an occupation for the children three years of age?

5. Write out two conversations suitable to be introduced into occupation exercises. Topics: (*a*) Snow, (*b*) A Leaf.

Education Department, Ontario.

JUNE, 1889.

EXAMINATION FOR KINDERGARTEN DIRECTORS.

THEORY AND PRACTICE OF THE OCCUPATIONS.

Saturday, June 29th,
1.30 to 4.

1. Explain the general aims of the Kindergarten Occupations, and give the special characteristics of each.

2. What things are essential as preparatory to the highest use of the Occupations, and how are they obtained?

3. Draw the school of right angles in Froebel's "Teachers School of Drawing."

4. Select the mathematical form, made by combinations of right isosceles triangles, which you consider best adapted to forms of life; using this as basis, draw six life-forms.

5. Deduce the definition of a rhomboid, beginning the definition with the largest class of figures to which it belongs.

Education Department, Ontario.

JUNE, 1889.

EXAMINATION FOR KINDERGARTEN ASSISTANTS.

THEORY AND PRACTICE OF THE OCCUPATIONS.

Thursday, June 27th,
9 to 12.

1. What connection exists between Gifts and Occupations?

2. What is the special object of the mat weaving? Give the formulas for children's school of weaving.

3. What preparation would you make for exercises in Clay Modelling and Pease-work?

4. Give an exercise in Modelling, developing the cube from the sphere, and transform the cube into a form of life.

5. Draw the School of Figures formed by a combination of all orders of slanting lines.

Education Department, Ontario.

JUNE, 1889.

EXAMINATION FOR KINDERGARTEN ASSISTANTS.

THEORY AND PRACTICE OF THE GIFTS.

Wednesday, June 26th.
9 to 12.

1. State the general objects of Froebel's Series of Gifts.

2. How would you use the 1st Gift in giving exercises to children three years of age?

3. How would you use the 1st Gift in giving exercises to children six years of age?

4. Name the special qualities emphasized in the first four Gifts.

5. Draw the forms of Beauty (Crystal) in the 3rd Gift.

Education Department, Ontario.

JUNE, 1889.

EXAMINATION FOR KINDERGARTEN DIRECTORS.

THEORY AND PRACTICE OF THE GIFTS.

Friday, June 28th,
1.30 to 4.

1. Explain the distinctions that exist in the different divisions of the Gifts, and show the correspondence of these divisions to the different stages of development in the child.

2. Give a statement of the general objects of the Gifts; show their special adaptability to *number* in various ways, and give, as an illustrative exercise, a building problem, using 6th Gift.

3. In giving exercises with the Gifts, designate the means you would employ to stimulate attention.

4. Write out an exercise with the 1st Gift suitable for children three years of age.

5. Draw the 1st Sequence Forms of Beauty (square basis) 5th Gift.

Education Department, Ontario.

JUNE, 1889.

EXAMINATION FOR KINDERGARTEN ASSISTANTS.

THEORY AND PRACTICE OF THE GIFTS.

Wednesday, June 26th,
1.30 to 4.

1. Define the prisms made with the 5th Gift.

2. State what exercises in number may be given with the 4th Gift.

3. With 7th Gift, using right isosceles triangles, draw the 8th point (comparison of math. figures,) in the practical illustration of that Gift.

4. Draw five Forms of Beauty from a given centre, using the five different sets of tablets.

5. Draw the triangular prisms in the 5th Gift.

Education Department, Ontario.

JUNE, 1889.

EXAMINATION FOR KINDERGARTEN DIRECTORS.

GENERAL PRINCIPLES.

Friday, June 28th,
9 to 12.

NOTE.—*A choice is allowed between 2 and 3.*

1. Show the organic connection of the fundamental principle of the Kindergarten with the leading views held by the educational reformers immediately preceding Froebel.

2. Give a full explanation of the general method of the Kindergarten.

3. How would you explain the scientific basis of the Kindergarten?

4. Give your views of discipline in the Kindergarten.

5. In the training of the child, for what special objects would you strive, and what means would you employ to attain them?

Education Department, Ontario.

JUNE, 1889.

EXAMINATION FOR KINDERGARTEN DIRECTORS.

"MUTTER-UND KOSE-LIEDER."

Saturday, June 29th,
9 to 12.

NOTE.—*A choice is allowed between 3 und 4.*

1. Froebel's "Mutter und Kose-Lieder" is the basis from which springs all subsequent education. Explain fully.

2. Show the consistency of Froebel's theory of the Light with his general educational views; give special illustrations of this theory in any two of the Light Songs.

3. Explain the Song of the "Fishes," with a full statement of the general principle illustrated.

4. What are the leading ideas in the songs "All's Gone, My Child," "The Weathervane," "The Grass Mowing"?

5. Give illustrations showing how you would apply your insight into the meaning of these songs, to your work with the children.

Education Department, Ontario.

JULY EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

LITERATURE.

Examiners: { JOHN SEATH, B.A.
W. H. BALLARD, M. A.

NOTE.—*A maximum of five marks may be allowed for neatness.*

Values.

I.

Clear and cool, clear and cool,
By *laughing shallow* and *dreaming pool;*
Cool and clear, cool and clear,
By *shining shingle* and *foaming wear;*
Under the crag where the ousel sings,
And the ivied wall where the church-bell rings,
Undefiled for the undefiled;
Play by me, bathe in me, mother and child.

Dank and foul, *dank* and foul,
By the smoky town in its *murky cowl;*
Foul and dank, foul and dank,
By wharf, and sewer, and slimy bank;
Darker and darker the farther I go,
Baser and baser the richer I grow.
Who dare sport with the sin-defiled?
Shrink from me, turn from me, mother and child.

Strong and free, strong and free,
The flood-gates are open, away to the sea;
Free and strong, free and strong,
Cleansing my streams as I hurry along.
To the golden sands and the *leaping bar,*
And the *taintless tide* that awaits me afar,
As I *lose myself* in the *infinite main,*
Like a soul that has sinned and is pardoned again,
Undefiled for the undefiled;
Play by me, bathe in me, mother and child.

3 1. Give a title for the foregoing poem that will shew its subject fully.

(OVER.)

Values.

$3\times3=9$ 2. What part of the river's course is described in each of the stanzas?

$2\times12=24$ 3. Explain the meaning of the parts printed in italics.

3 4. Write out lines 1 and 2, supplying whatever words may be necessary to make the meaning complete.

5 5. Point out any resemblances you notice in the stanzas.

3+3 6. What is Kingsley's object in asking the question in l. 15? How does this river resemble "a soul that has sinned and is pardoned again", l. 24?

II.

The next morning, being the 24th June, at break of day, the battle began in terrible earnest. The English, as they advanced, saw the Scots getting into line. The Abbot of Inchaffray walked through their ranks barefooted, and exhorted them to fight for their freedom. They kneeled down as he passed, and prayed to heaven *for victory*. King Edward, *who saw this*, called out, "They kneel down—they are asking forgiveness." "Yes," said an English baron, "but they ask it from God, not from us—these men will conquer, or die upon the field."

The English King ordered his men to begin the battle. The archers then bent their bows, and began to shoot so closely together, that the arrows fell like flakes of snow on a Christmas Day. They killed many of the Scots, and might, as at Falkirk and other places, have decided the victory, but Bruce was prepared for them. He had *in readiness* a body of men-at-arms well mounted, who rode at full gallop among the archers; and as they had no weapons save their bows and arrows, which *they could not use* when they were attacked hand to hand, *they were cut down in great numbers* by the Scottish horsemen, and thrown into total confusion.

3+3 1. What is the subject of each of the foregoing paragraphs?

$3\times5=15$ 2. Substitute an equivalent expression for each of the italicized expressions.

5 3. Explain fully what is meant by saying that the arrows were "like flakes of snow on a Christmas Day."

Values.	
2×3 $=6$	4. State, with reasons, where the chief pause should be made in the first sentence, and how "being the 24th June" should be read. How else may the parts of this sentence be arranged?
2×4 $=8$	5. Explain the meaning of "getting into line", "men-at-arms"; and the difference in meaning between "exhorted" and "asked", and "weapons" and "arms".

III.

10 Quote *one* of the following poems:

Before Sedan.
To Mary in Heaven.
The Death of the Flowers.

Education Department, Ontario.

JULY EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

ENGLISH GRAMMAR.

Examiners: { J. E. Hodgson, M.A.
M. J. Kelly, M.D., LL.B.

Note.—*Candidates will take the first six questions and either No. 7 or No. 8. A maximum of five marks may be added for neatness.*

Values.	
15	1. Show, by examples, that each of the following words may be used as different parts of speech. Tell the part of speech in each example: *only, that, above, which, summer.*
15	2. Write the third person singular of each tense of the verb *strive* in the indicative active voice (or, conjugation). Where there are different forms of the same tense, give the force of each form.
18	3. (*a*) "The *most ancient* of profane historians *has told* us that the Scythians of his time were a very warlike people, and *that* they elevated an old scimitar upon a platform as a symbol of Mars; for *to* Mars *alone*, I believe, they built altars and offered sacrifices." (*b*) "The night is *long that* never finds the day." State the part of speech and give the grammatical relation of each of the italicized expressions in the above.
14	4. Re-write the following sentences, making such corrections as you think necessary:— (*a*) Who should I meet the other day but my old friend? (*b*) A variety of pleasing objects charm the eye. (*c*) Are either of those pens yours? (*d*) The secretary and the treasurer was present.

(over.)

Values.

(*e*) Will I be late at school?

(*f*) Now therefore come thou, let us make a covenant, thou and I.

(*g*) His belly not his brains this impulse give.

9 — 5. Illustrate, by examples, the different ways in which the feminine is distinguished from the masculine in nouns and in pronouns.

3×3 =9 — 6. (*a*) Distinguish between the case and the relation of a noun.

(*b*) How is the possessive case indicated?

(*c*) How do we determine whether or not a noun is in the objective case?

20 — 7. Appalled by the greatness and *nearness* of the crisis, distrusting his captains, dreading *every* approaching soldier, dreading *to be left alone*, he sat gloomily *in* his tent, haunted by the furies of the prisoners suffocated in the Black Hole.

(*a*) Analyze the above sentence.

(*b*) Give the relations of the italicized portions.

20 — 8.

"Breezes of the South!
Who toss the golden and the flame-like flowers,
And pass the prairie-hawk that, *poised* on high,
Flaps his broad wings, yet moves not, ye have played
Among the pines of Mexico and vines
Of Texas, and have crisped the limpid brooks
That from the fountains of Sonora glide
Into the calm Pacific, have *ye* fanned
A nobler or a lovelier scene?"

(*a*) Write out the subordinate clauses in the above, and state their relations.

(*b*) Parse the words printed in italics.

Education Department, Ontario.

JULY EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

COMPOSITION.

Examiners: { M. J. Kelly, M.D., LL.B.
J. E. Hodgson, M. A.

NOTE.—*Candidates will take the first four questions, and* EITHER *No. 5 or No. 6. A maximum of five marks may be allowed for neatness.*

Values.	
22	1. Combine the following (*a*) into a compound, and (*b*) into a complex sentence : (*a*) The snow is still a foot or two feet deep in the woods. The ox-sled is taken out to make a road to the sugar camp. The campaign begins. (*b*) The sap-buckets are brought down. The sap-buckets are set out on the south side of the house. The sap-buckets are scalded. The sap-buckets have been stored in the garret over the wood house.
14	2. Change (*a*) from the direct to the oblique, and (*b*) from the oblique to the direct form of narration :— (*a*) "The best hearts," Trim, "are ever the bravest," replied my uncle Toby. (*b*) My uncle Toby cried, interrupting the Corporal, that a soldier was no more exempt from saying a foolish thing than a man of letters.
14	3. Rearrange the following so as to express the sense intended :— Strayed or stolen a bay colt with a white star on its forehead two years old and with two white hind feet with a long dark tail. One of our city sports shot twenty brace of partridges along with a friend last week.

(OVER.)

Values.	
20	4. In the following passage substitute other and appropriate words for those printed in Italics :— "It was maddening to see their *grand project thwarted* by a few French and Indians *ensconced in a paltry redoubt*, but they were *forced to digest the affront as best they might. Meanwhile, crouched* behind trees and logs, they *beset* the fort, *harassing its defenders day and night* with a *spattering* fire and a *constant menace* of attack."
30	5. Express in your own words the substance of one of the following lessons: "The Battle of Bannockburn"; "Dora."
30	6. Write a letter to a friend, describing (*a*) Your schoolhouse, (*b*) The equipment of the school room, (*c*) The appearance of the school grounds, (*d*) The work you do and the games you play.

Education Department, Ontario.

JULY EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

DICTATION.

Examiners: { J. E. Hodgson, M.A.
M. J. Kelly, M.D., LL.B.

Note.—The Presiding Examiner shall read the passage three times—the first time, to enable the candidate to collect the sense; the second, slowly, to enable the candidate to write the words; and the third, for review.

A maximum of five marks may be allowed for neatness.

"It is impossible to describe the triumph of that moment; here was the reward for all our labor,—for the years of tenacity with which we had toiled through Africa. England had won the sources of the Nile! Long before I reached this spot, I had arranged to give three cheers with all our men in English style in honor of the discovery, but now that I looked down upon the great inland sea lying nestled in the very heart of Africa, and thought how vainly mankind had sought these sources throughout so many ages, and reflected that I had been the humble instrument permitted to unravel this portion of the great mystery, when so many greater than I had failed, I felt too serious to vent my feelings in vain cheers for victory, and I sincerely thanked God for having guided and supported us through all dangers to the good end."

Education Department, Ontario.

JULY EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

READING.

Examiners: { JOHN SEATH, B.A.
W. H. BALLARD, M.A.

In the examination in Reading, the local examiners shall use one or more of the following passages, paying special attention to Pronunciation, Emphasis, Inflection, and Pause. They shall also satisfy themselves by an examination on the meaning of the reading selection, that the candidate reads *intelligently* as well as intelligibly. Twenty lines, at least, should be read by each candidate.

Lochinvar,	- - -	pp. 169—170.
Before Sedan,	- - -	" 199—200.
A Christmas Carol,	- -	" 207—211.

Education Department, Ontario.

JULY EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

HISTORY.

Examiners: { M. J. KELLY, M.D., LL.B.
J. E. HODGSON, M.A.

NOTE.—*Only four of the questions in English History, and only two of those in Canadian History, are to be attempted. A maximum of five marks may be allowed for neatness.*

Values.	
	I.—ENGLISH HISTORY.
13	1. State the causes which led up to the granting of Magna Charta. Give its chief provisions.
13	2. Under what circumstances were the parliaments of Ireland and Scotland united to that of England? Give dates, and the terms of union.
13	3. Give an account of four of the principal incidents in the struggle between the Crown and the Parliament.
13	4. In what reigns were the following Acts passed, and what was the object of each:—Act of Uniformity, Habeas Corpus, Act of Settlement, Catholic Emancipation, Reform Bill?
13	5. Write short notes on the Jacobite Rebellions and the Seven Years' War.
13	6. Give a brief account of England's struggle against Napoleon.
13	7. To whose influence and advocacy was the Repeal of the Corn Laws due, what were the causes therefor, and what beneficial results flowed therefrom?

(OVER.)

Values.	
13	8. Give an account of any two great writers or statesmen in each of the following:—(1) The reign of Queen Elizabeth, (2) the "Fifty Years of Whig Rule."

II.—CANADIAN HISTORY.

13	1. Write a brief account of the administration and explorations of Champlain.
13	2. Narrate the circumstances which led to Confederation.
13	3. Write explanatory notes on any three of the following:—

Family Compact:
Clergy Reserves;
United Empire Loyalists;
Rebellion Losses Bill;
Supreme Court of Canada.

Education Department, Ontario.

JULY EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

ARITHMETIC.

Examiners: { W. H. Ballard, M.A.
John Seath, B.A.

NOTE.—*Only six questions are to be attempted. A maximum of five marks may be allowed for neatness.*

Values.	
17	1. A bushel of wheat weighs 60 lbs. and a barrel of flour weighs 196 lbs. If 3 lbs. of wheat make 2 lbs. of flour, how many barrels of flour can be made from 343 bushels of wheat?
17	2. Find the interest on \$597.50 for 2 years 5 months 12 days at 8 per cent. per annum.
17	3. A and B start together and walk in the same direction, A at the rate of 4 miles an hour, and B at the rate of 3 miles an hour. At the end of 7 hours A turns and goes back. How many miles will B have gone when he meets A?
17	4. The circumference of a wheel is $\frac{22}{7}$ of its diameter; find the diameter of a wagon wheel which makes 360 revolutions in going a mile.
17	5. A town whose population was 10000 increased 10 per cent. every year for 3 years; what was its population at the end of that period?
17	6. The map of Ontario recently issued by the Crown Lands Department is drawn on a scale of 8 miles to an inch. On this map the Township of Scott measures $1\frac{5}{16}$ inches in length and $1\frac{1}{8}$ inches in width; how many acres does it contain?

(OVER.)

Values.	
17	7. If for $7 I can have the use of $35 for 3 yrs. 4 mos., how much a month shall I have to pay for the use of $8750?
17	8. It is required to build a sidewalk a quarter of a mile in length, 8 ft. wide and 2 inches thick, supported by three continuous lines of scantling 4 inches square; what will the lumber cost at $17 per thousand feet?
17	9. Write down neatly the following statement of six weeks' cash receipts; add the amounts vertically and horizontally, and prove the correctness of the work by adding your results:—

	Mon.	Tues.	Wed,	Thur.	Fri.	Sat.	Total.
1st.	$28.79	$34.71	$35.33	$30.10	$27.97	$47.81	
2nd.	23.87	30.03	29.38	33.84	26.77	48.77	
3rd.	16.99	27.09	28.77	30.16	24.95	43.07	
4th.	29.13	33.72	30.81	39.17	28.47	50.05	
5th.	18.47	32.29	26.73	34.45	28.88	54.39	
6th.	19.02	27.06	29.04	29.89	29.51	61.93	
Tot'l							

(*No marks will be allowed for this question unless all the work is correctly done.*)

Education Department, Ontario.

JULY EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

GEOGRAPHY.

Examiners: { W. H. Ballard, M.A.
John Seath, B.A.

NOTE.—*Only five questions are to be attempted. A maximum of five marks may be allowed for neatness.*

Values.	
15	1. Give the boundaries of Nova Scotia; describe its physical features; name its principal exports and the occupations of its people.
15	2. Through what bodies of water would you pass in sailing along the coast line of Europe from Holland to Sicily?
15	3. Name the lakes of Africa, and trace the course of the rivers through which their waters reach the sea.
15	4. Draw an outline map of North America, showing the positions of the mountains, and the chief rivers and lakes.
15	5. Draw a map showing a group of any five counties in Ontario; name, and mark the position of, the county town of each; also name and mark the position of any two lines of railroad in the counties.
15	6. What causes affect the size of a river? Its length? The rapidity of its current? Its windings? Its width? Its depth?
15	7. A ship is sailing with a cargo of wheat: from what countries may it have come? With cotton? With meat? With hides? A ship sails from Halifax; what is its probable cargo? From Chicago? From Canton? (OVER.)

Values.	
15	8. Name three large manufacturing cities, tell where they are situated and the manufacture for which each is best known. Name three great commercial cities, tell where they are situated and upon what the greatness of each depends.

Education Department, Ontario.

JULY EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

WRITING.

Examiners: { J. E. Hodgson, M.A.
M. J. Kelly, M.D., LL.B.

Values.	
12	1. Write the following stanza once :— "The dew was falling fast, the stars began to blink; I heard a voice; it said, 'Drink, pretty creature, drink!' And, looking o'er the hedge, before me I espied A snow-white mountain lamb with a maiden at its side."
8	2. Write each of the following three times :— *January 16th*, 1890; *XLV*, *sch*, *mld*, *ooo*, *ddd*, *unk*, *W*, *S*.

Education Department, Ontario.

JULY EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

DRAWING.

Examiners: { M. J. Kelly, M.D., LL.B.
W. H. Ballard, M.A.

NOTE.—*Only two questions are to be attempted.*

Values.	
13	1. Draw a book in a vertical position, showing its side, back and end finish.
13	2. Give a perspective drawing of a cube 2 in. to a side and represent it as being divided, by means of faint lines, into 64 smaller cubes each $\frac{1}{2}$ in. to a side.
13	3. *Sketch* a vertical and a horizontal line, not less than 4 inches long, for the diagonals of a square. *Draw* the square. Bisect each side of the square and sketch its diameters. Connect the ends of the diameters by horizontal and vertical lines to form a second square. Divide each side of the second square into four equal parts. Draw oblique lines connecting the upper angle of the first square with the first and third points of division in the upper side of the second square. Draw oblique lines from these points to the centre of the square. Repeat this in each of the other three angles of the first square.
13	4. Sketch a square (each side to be not less than 4 in. in length). Sketch its diagonals and diameters. Join the ends of the diameters forming an inner square. On each side of the outer square sketch a semicircle passing through the centre of the square. On each side of the inner square sketch a semicircle curving outward. Bisect the semidiameters of the inner square. Sketch a circle through these points of bisection. Line in all the curves.

Education Department, Ontario.

DECEMBER EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

LITERATURE.

Examiners: { J. E. Hodgson, M.A.
Thomas Pearce.

Note.—*A maximum of five marks may be allowed for neatness.*

Values.	
	I.
3	Children dear, was it yesterday
1	(*Call yet once*) that she went away?
3+2	Once she *sate* with you and me,
	On a *red gold throne* in the *heart of the sea*,
	And the youngest sate on her knee.
	She combed its bright hair, and she tended it well,
2	When down *swung* the sound of a far-off bell.
	She sighed, she looked up through the clear green sea,
1	She said: "I must go, for my *kinsfolk* pray
	In the little gray church on the shore to-day.
4	*'Twill be Easter-time in the world*—ah me!
	And I lose my poor soul, Merman, here with thee.,'
	I said: "Go up, dear heart, through the waves.
3	Say thy prayer, and come back to the *kind sea-caves*."
2	She smiled, she went up through the *surf* in the bay.
	Children dear, was it yesterday?
21	(1) Explain the italicized portions.
2	(2) To whom does 'she' refer?
3	(3) Why does she say
	"And I lose my poor soul, Merman, here with thee."
3+3	(4) "She sighed," "She smiled." Account for these actions.
3	(5) What feeling on the part of the Merman is implied by the first two lines and the last line?
15	(6) Give a brief outline of the lesson from which this extract is taken, and show the propriety of the title that is attached to it.

(over.)

Values.	
	II.
2 1 2 1+2 1 2+1 3+2 1	Scrooge was *better than his word.* He did it all and *infinitely* more; and to Tiny Tim, a weakly, delicate child of Bob Cratchit's, he was *a second father.* He became as good a friend, as good a master, as good a man, as the good old city knew, or any other good old city, town, or *borough* in the good *old world.* Some people laughed to see the *alteration* in him, but he let them laugh, and little heeded them; for he was wise enough to know that nothing ever happened on this globe for good at which some people did uot have their *fill of laughter* in the *outset;* and knowing that such as these would be blind any way, he thought it quite as well that they should wrinkle up their eyes in grins, as *have the malady in less attractive form. His own heart laughed;* and that was quite *enough for him.* It was always said of him, that he knew how to keep Christmas well if any man alive possessed the knowledge. May that be truly said of us, and all of us.
18	(1) Explain the italicized portions.
3+3	(2) "He did *it* all." "May *that* be truly said." Explain fully what is meant by 'it' and 'that'.
3	(3) What is the subject of this paragraph?
4	(4) What moral may be drawn from the lesson from which this extract is taken?
9	(5) State, in your own words, how Scrooge spent the Christmas Day referred to in this lesson.
	III.
10	Quote *one* of the following: (1) "The Three Fishers". (2) The first thirty-two lines of "Edinburgh after Flodden". (3) The first twenty-nine lines of "The Forsaken Merman."

Education Department, Ontario.

DECEMBER EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

ENGLISH GRAMMAR.

Examiners: { JOHN SEATH, B.A. / D. FOTHERINGHAM.

NOTE.—*All candidates will take questions 1, 2, and 3, and any two of the remaining four. A maximum of 5 marks may be allowed for neatness.*

Values.	
22	1. Classify, as far as possible, the words in the following extract, as (1) names, (2) words that take the place of names, (3) words that assert (or state), (4) words that modify (or qualify), and (5) words that connect:

"O Lady Clare, you shame your worth!
Why come you drest like a village maid,
That are the flower of the earth?"

2. *In* this year, Swift's relations with Steele *grew strained.* Swift declares *that* the *latter* was the worst *company in* the world till he had a bottle of wine *in* his head.

8	(1) Classify and give the relation of the clauses.
6	(2) Analyze fully the first sentence.
3×8=24	(3) Parse the italicized words.
4×4=16	3. Correct the errors in any four, and not more than four, of the following sentences:

(1) Hoping to see John and you tomorrow, believe me yours truly, James Thompson.
(2) If he does this, I will be forced to lay down.
(3) Have you ate your tea as quick as him?
(4) Corn has rose three cents a bushel yesterday.

(OVER.)

Values.

(5) When a person looks like that, they hadn't ought to talk so.

(6) The sailors, them we saw at New Haven, came right back again, though they done nothing wrong.

$4 \times 3 =$ 12

4. Form sentences to shew that each of the following may be used with the value of different parts of speech, and name in each case the part of speech:

on the road, carrying a load, where he goes.

12

5. In the following list classify the words that may be used as adjectives:

our, six, great, the, what, first, many, adjective, led, hurrying, most, stone.

$3 \times 4 =$ 12

6. Explain the meanings of Number, Person, Government, and Agreement; giving as many examples of each, as possible, from the following:

James and I saw her on this road-side.

$2 \times 6 =$ 12

7. Explain the meaning of the term Syntax, and state the Syntax of each of the italicized words in the following sentence:

There, where a few torn shrubs the place *disclose*,
The *village preacher's* modest mansion rose.

Education Department, Ontario.

DECEMBER EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

COMPOSITION.

Examiners: { J. E. HODGSON, M.A.
JOHN SEATH, B.A.

NOTE.—*Candidates will take questions 1, 2, 3, 4, and* EITHER *5 or 6. A maximum of five marks may be added for neatness.*

Values.	
10	1. Combine the following statements into a complex sentence: (*a*) These soldiers were lodged in miserable sheds. (*b*) They were still bound down by the suffering of that great agony. (*c*) They were fed only with grain and water. (*d*) They were not released till the female relations of the nabob interceded in their behalf.
18	2. Substitute phrases for the subordinate clauses in the following sentences:— (*a*) Men who have wisdom and virtue are nobler than men who have wealth. (*b*) The Pharisees did all their religious works that they might be seen of men. (*c*) It was greatly in his favour that he was strictly honest. (*d*) I cannot consider favourably what you propose.
	3. The Commons, in its *zeal* to *effect reforms*, was carried into excesses, which alienated some of its members and *drove* them to *sympathize with the king*. By *granting* to the *Scots* what they *demanded*, Charles had *produced* peace in the North, and *given* hope in England that he would now be more *yielding*. This expectation brought him *further* support, *particularly* of those who

(OVER.)

Values.

thought that the Commons had gone far enough in *asserting its rights*, and who *feared to plunge the country into anarchy*.

18 (*a*) In the above passage substitute other and appropriate words for those printed in italics:

6 (*b*) Re-write the first sentence, changing the finite verbs that are in the active form of conjugation into the passive form, and those that are in the Passive form, into the Active.

20 4. Draw an outline of an ordinary page of note-paper and of an envelope to correspond in size. Within the former write, with proper heading, &c., a note to your teacher asking to be excused for a day's absence from school, and within the latter write the teacher's address as for the Post Office.

28 5. Write in the form of a paragraph a description of the room in which the examination is being held.

28 6. Write a short sketch of the life of any author, statesman, soldier, or of an imaginary character, arranging your sketch under the following heads:—(*a*) Birth and Parentage, (*b*) Education, (*c*) Life-work, (*d*) Lessons to be learned from his life.

Education Department, Ontario.

DECEMBER EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

DICTATION.

Examiners: { D. Fotheringham.
John Seath, B.A.

Note.—The Presiding Examiner shall read the passage three times—the first time, to enable the candidate to collect the sense; the second, slowly, to enable the candidate to write the words; and the third, for review.

To Canada's lot have fallen, as her two staple industries, pursuits which most of all others tend to form in her young men a simple, manly, honest nature: agriculture in the first place, lumbering in the next.

The lumber trade has an organic place in the development of Canada's resources, in the growth of towns and cities, in the general increase of wealth, and in the evolution of literature and art which always occurs at periods of commercial prosperity. Everywhere northward and westward from the frontier, the lumber mill, the lumber depot, and hamlets connected with them, pierce the unbroken forest, and lead the steady advance of civilization. Villages arise, and become towns and cities, while the continual recession of the trade northward develops in its wake the growing resources of the country.

Education Department, Ontario.

DECEMBER EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

READING.

Examiners: { J. E. Hodgson, M.A.
Thomas Pearce.

In the examination in Reading, the local examiners shall use one or more of the following passages, paying special attention to Pronunciation, Emphasis, Inflection, and Pause. They shall also satisfy themselves by an examination on the meaning of the reading selection, that the candidate reads *intelligently* as well as intelligibly. Twenty lines, at least, should be read by each candidate.

I.	Resignation, - - - -	pp. 105—106.
II.	Landing of the Pilgrims, - -	" 229—230.
III.	National Morality, - - -	" 295—297.

Education Department, Ontario.

DECEMBER EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

HISTORY.

Examiners: { JOHN SEATH, B.A.
D. FOTHERINGHAM.

NOTE.—*Only four of the questions in English History are to be attempted; and only two of those in Canadian History. A maximum of five marks may be allowed for neatness.*

Values.	
	I.—ENGLISH HISTORY.
6+6	1. Give an account of: The Indian Mutiny; The chief writers of the Victorian Era.
8+4	2. What changes did the Reform Bill make? What other reforms took place in the reign of William IV?
12	3. Sketch the part England took in the struggle against Napoleon.
4×3=12	4. Give as full an account as you can of the careers of any three of the following: Washington, Fox, Burke, Pitt (the elder), and Gladstone.
3×4=12	5. Explain why Henry VIII, Edward IV, Simon de Montford, and the Battle of Bosworth Field are important in the history of the English people.
4×3=12	6. Write explanatory notes upon any three of the following: The Witenagemot; The Statute of Præmunire; The Petition of Right; The Act of Settlement.

(OVER.)

Values.

II.—Canadian History.

14 1. Make a summary of the services rendered to Canada by Champlain, La Salle, and Wolfe.

14 2. Write explanatory notes upon:

. The Quebec Act; United Empire Royalists; The Constitutional Act.

14 3. What important events occurred in Canada during the administration of Lord Elgin, and why are they important?

4+4+6 4. In whom is the sovereign power in Canada vested? Of whom does the Dominion Parliament consist? How are the laws made in the Dominion Parliament?

Education Department, Ontario.

DECEMBER EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

ARITHMETIC.

Examiners: { THOMAS PEARCE.
J. E. HODGSON, M.A.

NOTE.—*Only six questions are to be attempted. A maximum of five marks may be added for neatness.*

Values.	
17	1. A fruit merchant bought a quantity of apples for \$144; he sold half of them for \$82.80, thereby gaining 12 cents per bushel on what be sold. What did the apples cost him per bushel?
17	2. Find the interest on \$84.25 from April 16th, 1888, to November 4th, 1889, at 7 per cent. per annum. (Year = 365 days.)
17	3. A pint contains 9000 grains of barley and each grain is one-third of an inch long. How far would the grains in 17 bush. 3 pk. 1 gal. 1 qt. 1 pt. reach if placed one after another?
17	4. An orchard is $24\frac{2}{3}$ rods long and $15\frac{1}{4}$ rods wide. At $1\frac{3}{4}$ cents per cubic foot what will it cost to dig a ditch around it 3 ft. 9 in. wide and 4 ft. deep?
17	5. A sold a town lot to B and gained $12\frac{1}{2}$ per cent. B sold it to C for \$306 and lost 15 per cent. How much did the lot cost A?
17	6. In a room 26 ft. 6 in. long, 16 ft. 8 in. wide, and 12 ft. 3 in. high, there are three windows each $5\frac{1}{2}$ ft. high and 3 ft. wide, and two doors each 7 ft. high and $3\frac{1}{2}$ ft. wide. The base-board is 9 in. wide. How much paper, $\frac{7}{8}$ of a yard wide, will be required to cover the walls and ceiling? (OVER.)

Values.	
17	7. A farmer sells to a merchant 3015 lb. of hay at \$16 per ton, and takes in payment 6 lb. of tea at 80 cents per lb.; $22\frac{1}{2}$ lb. of coffee at 26 cents per lb.; 33 lb. of sugar at 12 lb. for a dollar; $32\frac{4}{5}$ lb. of raisins at $18\frac{3}{4}$ cents per lb.; 14 lb. 13 oz. of bacon at 16 cents per lb.; and the balance in cash. How much cash does the farmer receive?
17	8. Brown purchased $\frac{7}{2\,6}$ of a mill property for \$4064.55, and Smith purchased $\frac{9}{3\,5}$ of the same property at a rate 5 per cent. higher. What did Smith's part cost him, and what fraction of the property remains unsold?
17	9. My farm contains exactly 184 ac. 76 sq. rd. $24\frac{1}{5}$ sq. yd. There are 3.85 ac. in garden and orchard; 9·147 ac. of green crop; 76.9 ac. of grain; 23.608 ac of meadow; 34 ac. of pasture; and the remainder is uncleared bush. What per cent. of my farm is uncleared?
17	10. Write down the following statement of six weeks' cash receipts; add the amounts vertically and horizontally, and prove the correctness of the work by adding your results:—

	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.	Total.
1st.	\$95.65	\$89.24	\$59.79	\$78.04	\$59.37	\$98.16	
2nd.	71.58	65.41	67.24	62.49	67.02	51.42	
3rd.	58.47	57.99	50.60	71.08	82.91	76.89	
4th.	69.29	80.07	91.87	93.74	63.36	90.21	
5th.	45.81	93.56	82.54	57.96	72.12	67.96	
6th.	63.42	77.68	79.18	86.60	87.31	82.75	
Total..							

(*No marks will be allowed for this question unless all the work is correctly done.*)

Education Department, Ontario.

DECEMBER EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

GEOGRAPHY.

Examiners: { D. Fotheringham.
J. E. Hodgson, M. A.

Note.—*Only six questions are to be attempted. A maximum of 5 marks may be allowed for neatness.*

Values.	
13	1. Make a diagram showing how the zones are exposed to the sun's rays in the different seasons: and explain how we in Canada have the coldest weather and the shortest days when we are nearest to the sun.
13	2. Explain in few words: Trade Winds, Sea Breezes, Climate, Rain Fall, Solar System, Orbit, Plane of Orbit.
13	3. Write, in a column, the names of the following :— The city, town, village or township; the county; the province; the country; and the nation to which you belong. After each of these on the same line write the name of the body that make its laws or by-laws and the title of its highest officer or administrator.
13	4. Give a list in one column of such products of the stall, the dairy, the garden, the orchard, the field, the forest, the mine, and the waters of Ontario, as are usually sold in our home (or Ontario) market. Give another list of those sent to the foreign markets.
13	5. What goods do we import in considerable quantities from the United States? Great Britain? West Indies? China?
13	6. Make a map, at least six inches from east to west, of all the provinces bordering on the Gulf of St. Lawrence; marking and naming the chief cities, towns and islands; also the bays and straits. (over.)

Values.	
13	7. Name five nations that have free institutions, that is, in which representatives chosen by the people make their laws. Give the form of government and the title of its ruler in each.
13	8. Name all the bodies of water including straits, &c., through which you would pass in sailing the shortest way from Behring's Strait to the Black Sea.

Education Department, Ontario.

DECEMBER EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

WRITING.

Examiners: { THOMAS PEARCE. / JOHN SEATH, B.A.

Values.	
10	1. Write the following once:— The hollow winds begin to blow, The clouds look black, the glass is low, The soot falls down, the spaniels sleep, And spiders from their cobwebs peep.
10	2. Write the following three times:— October 29th, 1875, ght, thf, dgk, xyz, K, L, M, N, P, Q, R, S, 3, 4, 6, 0.

Education Department, Ontario.

DECEMBER EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

DRAWING.

Examiners: { D. Fotheringham. / Thomas Pearce.

NOTE.—*Only two questions are to be attempted.*

Values.	
13	1. Make a drawing of an ordinary coal oil lamp, 4 in. in height.
13	2. Draw a frame and door four inches in length showing panels and handle; first, shut; then, half open.
13	3. Make a circle having a horizontal diameter three inches in length. From one end of this draw two right lines each equal to a radius and touching the circumference. From these new points of contact draw two diameters, and join with straight lines the ends of diameters not already joined. How many and what kind of three-sided figures have you formed? How many and what kind of four-sided figures? What other figure of more than four equal sides?
13	4. On a perpendicular diameter of three inches make a circle. Divide this diameter into four equal parts. Through the lowest point of section draw a horizontal line touching the circumference. Through the point of intersection draw two other lines bisecting each of the right angles and terminating each way in the circumference. Upon these eight construction lines form the compound leaf of the horse chestnut.

Education Department, Ontario.

DECEMBER EXAMINATIONS, 1889.

HIGH SCHOOL ENTRANCE.

TEMPERANCE AND HYGIENE.

Examiners: { D. Fotheringham. / Thomas Pearce.

NOTE.—*Any five questions may be taken.*

Values.	
15	1. Give three chief reasons why you should seek to have a perfectly healthy body.
15	2. What is the proportion of water to solid parts in the human body? and name four important uses of water in the human frame.
15	3. What reasons can you give for calling water a natural drink and milk a natural food? Name the principal substances in milk and the proportions in which they are found.
15	4. Make short notes on: membranous screens, fibrine, blood corpuscles or globules, scorbutic, normal temperature of the human body.
15	5. Give five sayings of wise men on wine—two from scripture and three from other sources.
15	6. Describe the effects of alcohol on the corpuscles and fibrine of the blood and on the minute blood vessels.
15	7. Describe briefly the four stages of animal life under alcoholism.